Vol 6 No 9

The Australian COMMODORE and AMIGA REVIEW

September $3.50*

Latest HAM paint program - **Photon Paint II**

Easy accounting with Easyledgers

Kermit revealed

128 Startup Sequences

Super Snapshot v4

Freedom, The Kristal,
Mayday Squad, Joan of Arc,
Fire Brigade

Adventurers' Realm big birthday bash!

Registered by Australia Post Publication No NBG 6656

*Recommended retail price

"Skweek"

and ye shall find!!!

-"The hottest game for '89!"

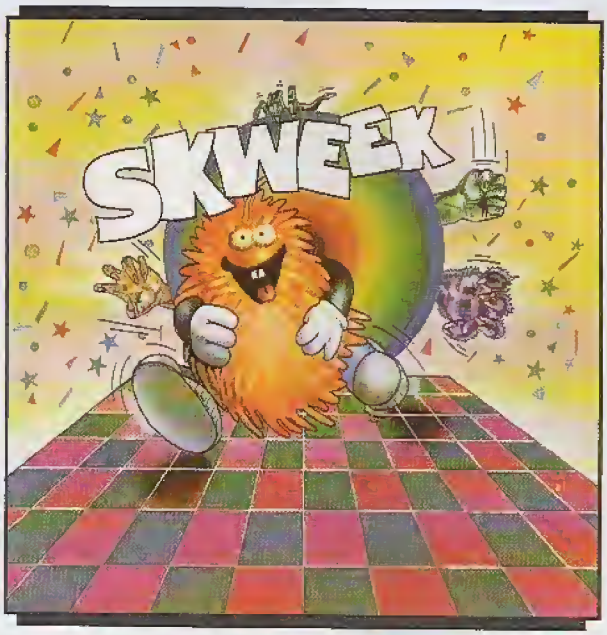
Hallelujah!!

In the beginning there was Chess, and it was good, but not that good. And Chess flourished, became popular and *begat* Checkers, which *begat* logical thought, which *begat* electronics, which *begat* computers.
Then there was the computer game, and it was better; but not by much. The computer game attracted many to evil ways of "Fun", but it soon lost its appeal, and the many strayed.

Then LORICIELS *begat* "SKWEEK", and it was fantastic! The many returned and increased manyfold. There was great enjoyment in the land, and many even forgot about *begatting* anything else.
The beginning, the end and the middle was "SKWEEK", the constant FUN and the eternal frustration. AMEN!

MAX: 1:12:4

And lo! "SKWEEK" could *begot* at Maxwells Office Equipment (VIC), Grace Bros, Myer, Harvey Norman, Computer Spot, Steve's (ACT), Westend, and ye multitude of other retailers.



Every now and then, there appears a game that has the lot; Graphics, Music, Sound FX, Action, Strategy, Puzzles and above all else, that indefinable "something" that makes you come back time after time.
"SKWEEK" is that game for 1989.
It's FAST, FUN, FRANTIC action right from the start. Simple to follow gameplay makes it instantly enjoyable and incredibly addictive.
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"SKWEEK" is available on AMIGA and PC (512k minimum, Graphics Card required) also on Atari ST & Amstrad CPC.

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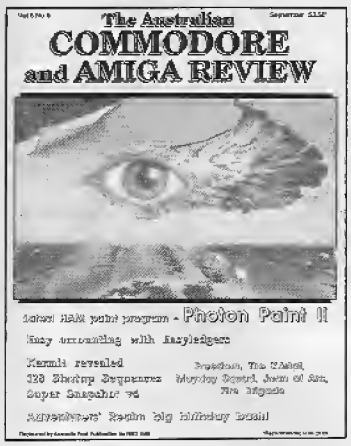
Pactronics

The Australian COMMODORE and Amiga Review

VOL. 6 NO. 9 September 1989

Contributors

Mario Annetta
Andrew Baines
Jon Benjamin
Phil Campbell
Oben Candemir
Nathan Cochrane
Damien Disney
Peter Gallen
Anthony Gillan
Michael Hassett
Eric Holroyd
Stuart Kennedy
David Legard
Rod McCallum
Dennis Nicholson
Marco Ostini
Frank Patterson
Ian Preston
Adam Rigby
Adrian Sheedy
Richard Silsby
Lindsay Swadling
Tony Smith
Trevor Smith
Michael Spiteri
Tim Strachan
David Thompson
Nick Van Heeswyk
Harry Waterworth
David Williams
Graham Winterflood



CONTENTS

Editorial	Software, PAL options, Annuals coming up!	2
News		
Ram Rumbles	Commodore/Microbee joint venture	3
C-64ers	Digitalker, Lifestyles, The Expert version 4.1R *C64*	4
Notepad	Pen Pal, Sculpt 3DXL, Ausgraph 89, Gurus *AMIGA*	6
Letters	C64-IBM, Page Stream, four player cable	10
Features		
Photon Paint 2.0	Latest HAM paint package *AMIGA*	12
Expanding your A500	A590 hard disk and expansion unit *AMIGA*	14
Introduction to Kermit	Protocol and transfer programs *C64/128*	22
Reviews		
Graphics Starter Kit	Aegis Amiga set for still pictures and animation *AMIGA*	30
Easyledgers	Amiga accounting made simple *AMIGA*	34
Amiga Digitizing	Lighting three dimensional objects *AMIGA*	38
Super Snapshot v.4	Latest version of enhancement cartridge *C64*	40
Programming		
Using the 1351 Mouse	How to use the mouse in your own programs *C64/128*	27
128 Start up Sequences	Customiser and Autoboot Sequences *C64/128*	46
Setting up your Hard Disk	How to instal programs, edit start up sequences *AM*	48
Entertainment		
That's Entertainment	News, Letters to the Editor, Hints and Tips, High Scores *AMIGA and C64*	52
Game Reviews	Freedom, Mayday Squad, The Kristal, Fire Brigade, Joan of Arc, Titan, Wanderer 3D, Sky Chase *AMIGA and C64*	55
Adventurer's Realm	Third birthday special, the rise and fall of Infocom, wargaming, hints and tips *AMIGA and C64*	69
Advertisers Index		72

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Editorial

Yet another international software publisher has gained direct representation in Australia. Mindscape is now at home on Australian soil, with some solid products headed our way over coming months. New titles from Mindscape will be released here prior to some overseas markets. What a step forward! It's certainly encouraging to see our needs being taken seriously by overseas entities - a trend I hope continues.

Australian Commodore users are finding themselves mentioned more and more often as a significant force to be reckoned with. Speaking with overseas publishers no longer requires an initial explanation of just how many computer users there are down under. What this all means is PAL versions of productivity software will be more forthcoming. Entertainment titles are also more likely to include PAL options. In fact there's no reason why some games could not automatically detect which machine they are operating on, and adjust accordingly. An interesting change in software licensing laws has taken place which could see some legal wrangles in coming months. In essence, distribution licenses for computer software titles are now in the same bag as the record industry. That means a company can have an exclusive license to distribute a product.

In the long run this will lead to better support, backup and warranty arrangements. It will also mean local companies will be able to secure a better deal from United States companies, meaning a better retail price for consumers. Let's all hope the U.S. dollar doesn't climb to far above its current position!

It's time for us to start collecting information for our annuals once again - so we encourage user groups to bring us up to date with their activities. Many have already responded in recent weeks. Please keep those details rolling in.

Starting this issue, we also welcome Phil Campbell as the new entertainment editor. Phil will be looking after the games arena including adventuring, high scores and hints and tips at the back of the magazine. Consider the lighter side of Commodore computing to be under his wing starting this issue. ❑

Andrew Farrell

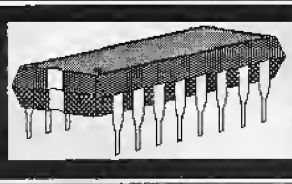
Pactronics

ELIMINATOR -In the July issue we suggested that the supplier of *Eliminator* was Ozi-Soft. We have now found that in fact Pactronics Pty Ltd (02 407 0261), are the exclusive distributors of this and all Hewson products in Australia.

STAR TREK -In last's month magazine we stated that this game was distributed by Questor on Commodore disk, cassette, and Amiga. It is also available on IBM format from Pactronics Pty Ltd.

POLAWARE -In the July issue there were reviews of a number of Polaware products which were supplied to us by Computermate. We have since been informed that Pactronics Pty Ltd has exclusive rights to Polaware products in Australia. ❑

Ram Rumbles



Commodore-Microbee joint venture

● In a surprise announcement at a recent press conference, Commodore and Microbee disclosed a special joint venture which will be a great boost to the Australian market. In essence, Commodore plans to finance the development of a large number of Microbee educational titles across to the Amiga format. In return, Microbee will be providing additional channels to help reach the educational market Commodore so dearly wish to be a greater part of.

Following the agreement, Microbee educational centres will stock the Amiga and low end PC range of machines.

The development of software within Australia is a fine thing. Software is one product our country can produce and export competitively to our near neighbours - as well as the entire world. Educational programs are in high demand locally and overseas in Canada, the United Kingdom and U.S.A. Hopefully, this latest agreement will spur on local developers further. Commodore continue to seek out local talent in a bid to further establish the software industry and create products Commodore Australia can take to the rest of the world. ❑

WARNING

PEN PAL IS BEING OFFERED IN THIS COUNTRY AND NOT BY THE OFFICIAL DISTRIBUTORS.

BEWARE, this is not the PAL version, but is the NTSC version which was recently launched in the US. Please read the following excerpt from a fax received from the publishers.

"We just completed a superb launch of Pen Pal here in the States. It is NTSC-only. We are waiting to update the Pen Pal program disk with fixes to all bugs found in the official launch. From that new disk a PAL-only Pen Pal will be created. This delay will make the PAL version the cleanest one available, cutting down support questions.

" . . . . They will ship in the next couple of weeks. You are the only distributor in Australia with Pen Pal on order. There is no grey market because PAL versions can only be bought directly from Brown-Wagh."

IT IS ALWAYS worth waiting for PACTRONICS products.

Only the best and the latest!!!

This advertisement has been inserted by PACTRONICS in the interests of consumer protection.

Update

Hello There! If this coloumn seems a bit disjointed this month (as if it wasn't every month!) it is because I am so excited about Pactronics new releases!!!

! S.T.A.G. (C64 or Amiga) For those of you who are old enough to remember the game "ELITE", this is a dream come true! It is an intergalactic space story par excellence. You have to negotiate with aliens, increase your Trading Company's fleet, fight off the pirates and benefit humanity. UNPUTDOWNABLE!

!! THE CHAMP (Amiga) Here is a boxing game unparalleled in its quality. So much so, that it has been approved by the W.B.C and the music is the theme from "ROCKY". What more could you ask?

!!! SKWEEK (Amiga or PC) Please read the ad on the inside cover - this is the biggest game of the year.

!!!! ELIMINATOR (C64, Amiga and Atari) If Schwarzenegger thought he was invincible, it is because he never met the ELIMINATOR! And believe me, this is a lot more fun than the film.

!!!!! SANTA PARAVIA (Amiga and PC) You are the ruler of this city state and you have to worry about everything - serfs, grain harvests, marketing, taxes, law of the land, the clergy, and the fear of being invaded. This is a mentally stimulating strategy game which is a lot of fun.

Also new is a book, C FOR ADVANCED (C For Beginners already available) and the new AMIGA VIRUS TOOLBOX - a MUST in today's "germ warfare".

W.O.W.

Advertisement

C64ers...

Digitalker 128

● Free Spirit Software has released *Digitalker 128*, a new programming utility for BASIC 8 and BASIC 7.0 programs on the Commodore 128. With *Digitalker 128*, the user can add digitized speech to C128 80 column programs.

The package is a set of machine language routines that can play digitized sound samples from within a program. Around 500K of sounds are included on the ClipSound Disk supplied with *Digitalker 128*. *Digitalker 128* supports, but does not require, a 1700 or 1750 RAM Expansion Unit. The program and ClipSounds are supplied on two 1571 format disks. Because they are not copy protected, the disks may be copied onto a 1581 format disk.

Included with *Digitalker 128* are several speech demos and talking 80 column games. At a suggested retail of $39 (available from Briwall 062 880 1310).

Lifestyles software

● When you first bought your Commodore, the salesman most likely told you a good reason to own the machine was for balancing your cheque book or storing recipes. Well, at long last you can do just that. Cathox have a great range of very practical reasons to justify owning your home computer. Whether you collect wine, or recipes from the great chefs, there's a program to choose from. Watch for a review of *Wine Companion* soon. For further details call (02) 92 6999.

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The EXPERT v4.1R - an update by Eric Holroyd

I first reviewed this cartridge/disk system for the C-64 in the July 88 issue of *ACAR*. I liked it a lot and it had a number of features to recommend it. The main attraction was that it is user-programmable and is constantly upgraded by its makers - Trilogic (UK). The update is all on disk rather than ROM and the system works by having the required functions loaded into the cartridge from disk prior to carrying out the job in hand.

Once again, this is a system offering a multiplicity of features including: Memory capture copying/backup of protected software, Sprite Editor, Disk or Tape Turbo Load feature, Machine Language monitor. The systems disk also includes a number of parameters for some multipart load games as well as pokes and cheats for popular games. A file copier is included as well as a compacting program to compress Experted files. As the system originates in UK (where many 64ers still use cassette tape) it's designed to work with both disk and tape.

In the December 88 issue of *ACAR*, Andrew Farrell did a cartridge comparison in which he was critical of the Expert's design whereby you could only have one program installed at a time on the cartridge. He also said that the Expert could be a good choice for the hardened hacker or dedicated user as it has plenty of power. Well, the update to v4.1R fixes Andrew's main complaint, and you may now freeze a running program (such as your latest game), use the Expert's machine code monitor to check out the code, change or add to it, then restart the program at the point where you froze it.

On top of that, it's possible to display all the sprites in memory for real-time editing (same with pictures made up of redefined characters) and in fact, use all of the Expert's battery of utilities by swapping from one function to another whilst still having the original program in memory. This ability to swap functions is probably the Expert's biggest step forward in a long time and existing users updating to this version will readily appreciate this. Machine Code hackers will like the bi-directional scrolling and function key commands now available in the monitor too.

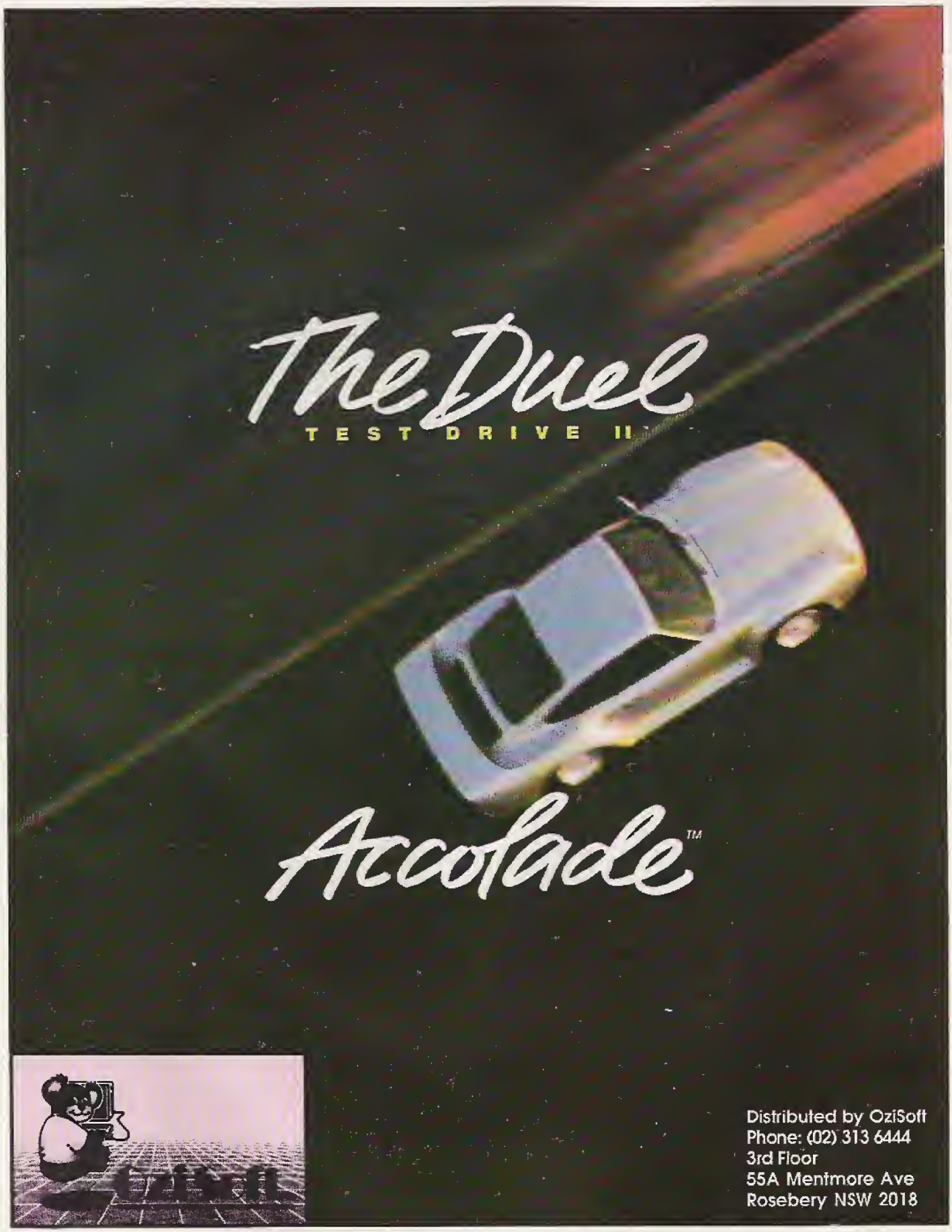
Another feature of interest to gamers is the Joystick Autofire function and there's also a routine for swapping the joystick to the other port. This could be useful if, say, port one has gone kaput and that's the one your best game uses. It's simple, just specify the other port instead. There's also a sprite killer to let you cheat and a nifty feature called Immortalizer which attempts to find an Infinite Lives poke for you to enter.

For graphics freaks there are routines to save screens both in Hires and Multicolor and you may edit more than one screen at a time. This is apparently how the hackers put their own screens and messages into games, folks, but there are also more serious applications for graphic artists here in display work. Pictures may be printed out in either normal or reverse and the manual promises a print of what was on the screen when you froze it.

There are two exceptions. One is that sprites will not be printed and the other is that you may not be seeing exactly what is being displayed if the screen is split by a raster. Before printing anything you can check what the captured screen looks like by using the Screen Viewer option.

There's full support within the ML Monitor for unlisted opcodes with a table of them contained in the manual, along with lots of other machine language information such as a full list of the C-64's 6510 opcodes. The manual is 40 pages of photocopied fine print packed full of info for the serious computer user. If you're really into machine language and like exploring the workings of commercial programs then you should have this tool in your armoury.

Review copy of the v4.1R update software from HPD (08) 252 3300, $29.95.



AVAILABLE ON AMIGA, COMMODORE 64/128 DISK, IBM COMPATIBLES

Notepad Notepad

Amiga features in Ausgraph '89

- Squares and Checks Winner

● The inaugural Ausgraph '89 was held recently at Darling Harbour, Sydney. Ausgraph '89's Vision Control Award, a competition to find the best experimental film and/or video animation in Australia was presented. You can guess who won! Of the six major entries, three were produced on the Amiga. Our friends in Canberra, Emmanual Stafanou and Associates, produced an astounding video which took *Videoscape 3D* to the limit. However, it was ruled as too commercial for this particular competition. The overall winner of this awar, was 25 year old John Tonkin from Adelaide. John has had a long background in science and the arts, including animation and film-making. His work, titled "Squares and Checks", featured two flights through abstract landscapes, programmed on his Commodore Amiga computer.

John Tonkin
AUSGRAPH VIDEO WINNER 1989

Best described as voyage through an infinite landscape of random coloured shapes adhering to set rules of generation, both animations in the work have a soothing organic feel. There's nothing traditional about the work, which could almost be said to be impressionist animation - John has truly broken fresh ground. The method used to construct this animation was unique. Instead of the normal process of recording, he filmed each frame by directly "shooting" a high resolution video monitor screen, in each of the three video primary colours. Each frame was, therefore, exposed three times, once each in red, blue and green.

This gave John much better visual quality, with effectively 16 colours (4 bit colours) which would be achieved by the computer in high resolution mode. Furthermore, he elected to use 16mm film to further increase the quality of the finished product.

While this method of production is very much more involved and painstaking than using video output, the results were outstanding - certainly the judges were impressed!

Even more impressive was the fact that John did not use any commercial software to achieve the result, all the programming was his own work, using C. The first prize for the Ausgraph '89 Vision Control Award was a cash price of $500.

John hopes to eventually produce enough material to be able to mount his own exhibition, using multiple projectors and screens in a unique format. He hopes that the exposure to his work gained by winning the Ausgraph '89 competition might result in the large scale sponsorship such an exhibition would require.

Ausgraph will be back next year - a very worth while event.

Missing link no Longer

● Oxxi will be distributing a Novell Network port for the Amiga. Scott Martin, the developer, describes the installation as pretty much plug in and go. This is a healthy addition to the Amiga capabilities. Coupled with Ameristar's Ethernet capability - in marketing not networking terms - these two facilities will go a long way towards making the Amiga appear more serious to people at larger companies.

This is an important development for the Amiga, since Novell is the high volume network tool for IBM owners. But it is not a peer to peer network, which is something that has more mass appeal for the Amiga. This will come with some Decnet software, two versions of which are being written, one by Bob Tully of Syndesis in America and another by Paul Ockenden of VFM Software in Brighton. No news on a local distributor as yet - but at least we know true networking power is on the horizon.

Amiga 2000 smooths those cartoon capers

● When your favourite cartoon character chases his adversary round the screen, it's quite likely that his movements have been co-ordinated by an Amiga 2000.

A system based around the Amiga 2000 is now speeding up the production of cartoons, making life easier for the animators and improving end results.

Called the Chromocolour Line Tester, it has been developed by Chromocolour Animation Supplies and Equipment which provided all the animation kit used in *Who Framed Roger Rabbit.*

Rolf Harris built his recent Cartoon Club television programme around it and plans to use it for another series. Steven Spielberg is using it for his sequel to *An American Tale,* a host of top film companies have bought it and even the giant Disney corporation is poised for a massive order.

It has also been found that teaching animation to children with the line tester can prompt computer literacy and improve other aspects of education, particularly for those with learning difficulties. This has been proved by Stan Hayward, creator of Henry's Cat, who has used it in a Kilburn school with dramatic results.

The line tester teams up a video camera, digitizer and the Amiga 2000 to shoot animation sequences and play them quickly so timing can be adjusted and movements plotted before acetates are painted. At present the top professional system costs $10,000 (British), but there are plans to develop a $2,000 (British) version for education and to make a system based on the Amiga 500 for the domestic market.

Dataflow to handle Disc Company products

● *Critics Choice, Publishers Choice, Superback, Kindwords* and the list goes on. The Disc Company have some impressive titles - all of which are now to be distributed by Dataflow. Previously concentrating on educational titles, Dataflow are well known for their dedication and strong support. The Disc Company have a strong commitment to serious applications for the Amiga - a range which we're

sure Dataflow will handle well. Costing of high end programs has always been difficult. With the increased volume of Dataflow's purchase, new economies of scale will be reached. For example *Kindwords*, which previously retailed for over $150, will now go for a little over $100.

Exactly the same warranty, replacement and back-up policies will apply as other Dataflow product lines. Bravo guys.. or should I say girls (Dataflow is predominantly managed and run by some well organised women) - more of the same please.

New look to user group magazine

● Since our story on *Page Stream*, more and more people are churning out some very fancy looking newsletters. One in particular is the new *Cursor* produced by the Commodore Computer User Group (Qld) Inc. The whole publication has been given a new look and feel thanks to some fancy fonts and good use of shading. Well done, guys. (We agree with combining Amiga and C64 together - it's the only way to ensure both continue to get looked after.) ❑

News from the USA by Peter Ward

Digipaint 3.0

● Although Newtek have been advertising *Digi-Paint 3.0* in U.S. publications for some months now, it did not begin to appear on dealers shelves until mid July. The competition from Microillusions and Electronic Arts may have held up its release, but the wait seems to have been worth it. The first feature I noticed was sheer speed of operation. *Digi-Paint 3.0* comes very close to most non-HAM programs in speed of execution, the lack of which *Photon Paint 2.0* users will no doubt be aware of when doing most brush mapping operations.

Digi-Paint 3.0 has been programmed in assembly language - which gives it such remarkable speed. However, the user interface has also been greatly revised, and now has a superb intuitive feel for all drawing and brush tools due to the influence of Jim Sachs. The version I used supported horizontal resolutions up to 480 lines only, from which I inferred, no PAL support - yet.

To date Newtek have supported PAL versions of both *Digi-Paint* and *Digi-View*, so it seems reasonable to assume a new PAL version will be forthcoming. *Digi-Paint 3.0* has a unique interface for transparency and mapping operations. By presenting the user with both wire frame and painted spheres, the user can, say, place a highlight on a sphere and vary the relative transparency of the highlight, with full, average and zero effects also being shown on three miniature sphere icons to help judge the effect. X-Specs and AREXX are now supported, and the dithering routines have been improved to a level of being the best available for any HAM program to date.

Newtek have included in the palette 16 base colours, which when used will give "fringe free" results. Colour fringing has also been avoided with text input, itself a new feature to *Digi-Paint*. The user now enters text into a requester, and via a few clicks of the mouse the text is treated as a brush, and placed with the mouse cursor. This interface seems quite clumsy at first, but when you combine this with brush mapping operations it becomes quite elegant. Multiple font directories are now supported. *Digi-Paint 3.0*

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FOR THE AMIGA

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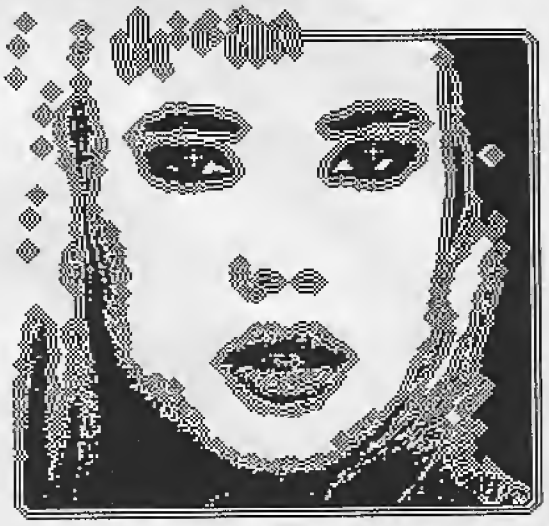

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Notepad

allows page sizes up to 1024 pixels across, and once the cursor approaches the screen edge, the screen scrolls automatically. There are keyboard equivalents for most operations, with the defacto standard of *DeluxePaint* being adhered to in most cases. The only thing I didn't like was the large control panel being on the bottom of the screen, which seemed to interfere with the drawing process, lack of flood fills and the fact that the right mouse button does nothing.

The good things being much more numerous, especially the price, $US99 with $US29 for upgrading users and a mere $US50 for other HAM paint program users with original manuals, make *Digi-Paint 3.0* a "must have". *(We have been in touch with Newtek and they promise to whiz over a copy of the PAL version as soon as it is released - Ed.)*

Workbench 1.4 rumours

● Workbench 1.4, while not yet released to the public, has been released to developers in its "Alpha" stage. Fatter Agnus, shipping now, and the new Denise Chip, will be an integral part of the upgrade, forming the Enhanced Chip Set (ECS). A new graphics.library will make use of these chips, which will give 1 megabyte of chip ram, a non-interlaced hi-res display (available on a soon to be released bi-sync monitor) and a "super hi-res" (1280 x 200) screen mode.

None of this news would come as a surprise for many of you, however, the ECS will support a new Genlock mode, so that colour zero need not be the only transparent colour, and any colour could be "Chromakeyed" for overlay. Further, any bit plane will be able to be selected for a video overlay, thus making software masking a very simple process. Workbench will get a new face lift, having a textured background and information about the contents of a window being displayed on the title bar. Startup sequences will be made available through the workbench environment via a new drawer called "WBStartup". AREXX will be included into the operating system and most system commands will be rewritten. Perhaps one of the best features will be a new Workbench "Tools" menu, so that your favourite software (*DPaint* or whatever) can be installed onto a hard disk (floppies as well, with associated limited capacity) and selected via a "Tools" menu selection, thus removing the steps of selecting a disk, clicking its icon, then a drawer, then the program.

Pen-PAL Released

● PEN PAL from Brown Wagh was available in early July. In short, it is great! Seeing letter quality printer fonts and bit mapped graphics on the same page gives an effect most desk top publishing programs would be proud of.

Brown Wagh have given the program a superb Amiga "feel" with most word processing and graphics tools being very intuitive. A feature I found particularly nice was the mouse pointer, which changes depending where the cursor is located on the screen, and in doing so lets the user know which operation is active. Through discounting, the price comes in at less than $US85.00, making this program a must.

(We are currently awaiting the PAL version for review - they tell me the actual PAL fix is a fifteen minute change, however we will have to wait for the next version release before shipping begins. Hopefully that means we will miss out on those few nasty bugs in the release version of most products. Watch for Pen Pal around the end of this year. - Ed.)

Sculpt 3DXL

● Byte by Byte have introduced a new version of *Sculpt 3D* and called it *Sculpt 3DXL*. The format remains relatively unchanged, with rendering times and modes being the major improvements over the older version. I telephoned Emerald Intelligence to find out what happened to version 1.1 of *Magellan*. I was assured that it would be shipping within two weeks (end July) to registered users. Progressive Peripherals will shortly be releasing *Ultradesign*, a CAD program for professional users, as the price of $US399.95 indicates.

Another Accelerator!

● New hardware developments include the HURRICANE 2800 accelerator board from Ronin Research. This is a 68030 based board running at a synchronous 28 MHz with co-processor support options of up to 33 MHz. Performance is similar to GVP's 68030 Impact board. The system will include an autobooting SCSI disk controller and is expected to sell for $US3300.00. Progressive peripherals have introduced the EXP-8000, an internal memory expansion board for the Amiga 500, with the big difference being up to eight megabytes will be available to A500 users via one megabit DRAMS. The board has options for 68010 and 68881 processors with the latter having a 24 MHz option.

Gurus

● Word has it that the 1.4 release of the Operating system will have big changes, not least of which will be the final abandonment of the big flashing red "GURU MEDITATION NO.....". I suppose if you're a "suit" and using the Amiga for straight business, it must be something of a shock. Legitimacy and widespread sales have their down sides, I guess, and I'll miss the shock-horror, and the vague suggestion that there is some kind of wise man in there who knows what's going on. - Peter Ward

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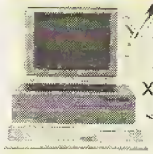

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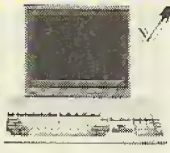

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LETTERS

TO THE EDITOR

C64-IBM

I have a few problems and I thought I might try them out on the experts!

● Is there any way to transfer files from the C64 to another computer, particularly an IBM compatible or Wang mainframe using PC Plus? I am particularly thinking of unformatted wordprocessing files that could be typed on the C64 then formatted and printed on another computer (I don't have a printer). I vaguely recall reading about being able to do this by converting files to ASCII files but have never been anle to get any details. Is this possible or would it be easier to buy a word processing package and printer for my C64?

● In relation to the above, in your June 1988 issue you reviewed a WP package called *The Write Stuff*. Could you please let me know where I can purchase a copy of this software.

● I have been having on-going problems with my 1541 disk drive, which repairers seem to diagnose out of hand as an alignment problem. However after about four alignments in six months I was still experiencing problems.

When I turn the drive on it will not read any disks and I get a file not found error (21 Unable to find Sync mark). This happens regardless of whether I am trying to access program, sequential or relative files, or the directory. If I leave the drive on for about 30 minutes and then try it it works perfectly every time with no read errors. This doesn't seem to me to be an alignment problem.

One technician who serviced the drive said that damp/condensation may be a problem but wasn't very specific and merrily re-aligned the drive (which didn't make any difference at all to its performance).

Do you have any suggestions as to what the problem might be and how it could be rectified? I am getting sick of waiting 30 minutes to use my drive!

Brenden Blanchard
Bayswater VIC

Ed - Yes, you can transfer files either by modem, over a phone, by direct cable or with a 1571 disk drive, and a program called Big Blue Reader - which is available from Briwall (062) 880 131.

The Write Stuff is also available from Briwall or selected user groups.

Your drive problems sound unusual. Have you tried:

OPEN 15,8,15, "I": CLOSE 15

Do once with the drive door open, and then again with the door closed. Perhaps some other users/technicians can help enlighten us further.

Page Stream success!

I found your article on *Page Stream* very informative and later went and purchased it.

I am very pleased with *Page Stream* and would recommend it to any dot-matrix owner.

Page Stream also has the *Scribble* program and an inbuilt screen blanker. Is there any way I can "sift"out this screenblanker file and put it in my startup-sequence?

(Ed - No but try Mackie on Amiga Live 3 for the screen blanker.)

Briefly tell me how I can configure *Page Stream* to run from my hard disk because I keep getting "please insert Pagestream fonts: ... etc.

(Ed - You need to ASSIGN the volume names across. This is explained in the Page Stream manual.)

Why is it that when programs are copied through the CLI including that programs info, why doesn't that icon appear on the disk window that I copied to? (sometimes it works).

(Ed - try closing the window, then opening it again).

Also I recommend hard disk owners not to use disk doctor. Unfortunately I did not have a hard disk backup program and was frantically copying my important files through the CLI to floppies. I only had time to copy half the amount of files before my hard disk became corrupt!

Gavin Keir
Turramurra NSW

Ed - Yes, we use Disk Mechanic's repair program - it is very reliable.

Corrections: user port connections

In the June edition of *Australian Commodore and Amiga Review* there is a mistake in the User Port connections article. In the third last paragraph, the Statement "POKE 56577.0 will set all the control lines to 6 volts" should say 0 (zero) volts, not six as was printed,

This mistake may cause some people problems if you do not realise it is an error.

Mario Annetta
Reservoir VIC

Ed - Our apologies.

Unfair review

In your issue of Vol 6.6 of the ACR you wrote an article Picking a Printer.

Well. sir, I am the happy owner of a Citizen 120D printer. I have had it for some 18 months, it came with a Commodore interface, plugged straight in and has not stopped since. I have used it with *Fontmaster 128, GEOS 128, Cadpack 128* and a lot of home made data base programs which use the printer when required.

Sir, did you really give the 120D a fair go or am I one very lucky person to have scored a great printer?

H Hovasapian
Mt Isa QLD

PS The full price paid was $444.00 including spare ribbon, interface and freight.

Ed - We tested two printers - both had the same problem loading paper. A third printer, purchased by one of our contributors, also refued to load single sheets. I agree the 120D is very capable in many other respects, however for a little more money you can get the equally endowed yet significantly more reliable in operation Star NX 1000 for example. All things are relative.

WorkBench upgrades

I have only just recently purchased my Amiga 500 and subsequently received the new 1.3 version of Workbench with it. How often is this updated and how much does it cost to do so?

The July issue of your magazine is the first I have bought but it definitely won't be the last. Until now I have limited my reading to English publications but an Australian view is is most welcomed, especially because of the feedback which is possible through the letters section and advertisers specials etc.

I owned a C64 for many years and realised recently that its life as a major computing force was beginning to diminish due to the competition in the 16 bit arena. This may be true but for the price it is still an excellent machine and I'm sure it will be some time before the Amiga's software range and price equals that of the C64.

Anyway keep up the good work and I hope the quality of your publication continues into the future.

Jason Studwick
Junee NSW

Ed - Upgrades appear about once every 12-18 months, the cost of which is entirely dependent on the size and complexity. The latest upgrade is around $40.

Four player cable

I have a 1 MB Amiga 500, which I've had since December 88, and I'm very pleased with its performance and versatility. How many other computers can emulate an IBM, a Commodore 64, a BBC with software, and emulate a Macintosh and UNIX with hardware?

I've noticed with some games like *Pinball Wizard*, that the computer won't reset properly and instead shows a picture and repeats some speech. How is this done? Is it just a matter of changing a few vectors in RAM to point to a custom routine?

And could you please recommend a good book or two on machine code for the Amiga?

Up until recently, I had been trying to get hold of a four player adapter, suitable for *Gauntlet II*, with no success. Apparently they are made in the UK and they won't export them to Australia, because "there isn't a big enough market". Days later, looking through Viatel, I found some incomplete instructions on how to build one, and through trial and error deduced how to build one. Now I sell them via mail order for $18.00 each plus P&P, and I have also applied for a patent for it which is now pending. If any of your readers would like one, they can ring me on (08) 298 4404 all hours.

Steven Collins
Flagstaff Hill SA

Ed - Yes, it is a vector or two. The Abacus Amiga Machine Language book from Pactronics (02) 407 0261 is good, along with a good 68000 reference manual. Compute books and Sybex programmer's guide and handbook are also very good.

Miss Print

In the July issue of *Australian Commodore and Amiga Review* there are two errors in the programs listed in Advanced Basic. In the first listing in line 15, the first + was meant to be a =. This error occured in the next listing in lines 10 and 15. Sorry!

Nick Van Heeswyk
Mt Gambier SA

Ed - Our apologies again.

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Photon Paint 2.0

by Peter Ward

MICROILLUSIONS have revised and updated their excellent HAM paint package in *Photon Paint 2.0*. There are numerous additions and improvements to the graphic toolbox, more sophisticated brush operations, colourization features, the ability to create stencils as well as the ability to work on multiple pages and animate the finished product.

One subtle, yet major addition is the inclusion of keyboard equivalents for many of the menu selections. Indeed, many new program features are transparent to the user of this updated version, and a little time spent with the excellent manual will yield many rewards.

The **Tools** menu remains unchanged, with the exception of an adjustable airbrush nozzle and a filled polygon mode, both allowing greater control in freehand mode. The **Project** menu has several new features. Use of **Load** will load a nominated HAM picture, and will now also load ANIM files.

The major change in this menu however is the presence of a much expanded **Alternate** command which allows any number of "pages" to be loaded, being limited only by memory. **Merge To Next** then allows a constant background to be merged onto the working page, and then through alteration of a foreground object, the work can then be animated by "flipping" through the pages with the **Animate** function. Several new fonts and font manipulation options have also been included.

Fonts can now be underlined and made to appear only as an outline, extremely handy for creating video titles, and with this in mind, *Photon Paint 2.0* has a **Video** option which will hide the mouse cursor for photographic or video applications. The preferences menu has **Fast Brush** as a new addition, which allows user defined brushes to be used in the free-hand draw mode. This function was limited to the dotted free-hand line in the earlier version, though the new addition is most welcome, I found to be slow in response when compared to the *DeluxePaint* equivalent.

Clear To First will allow the colour in the first palette square to be treated as the transparent or background colour when the screen is cleared or merged to the next screen. The Brush menu has an excellent new feature called **Stretch**. This presents the user with a rectangle which has four "stretch points" on each corner.

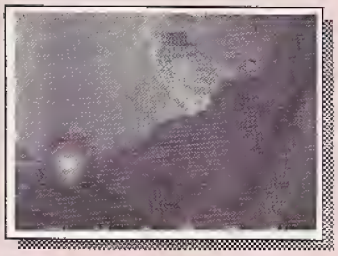
Moving any or all of the points will stretch (or compress) the brush out to the new corner location. With this feature it is also possible to twist the brush to a maximum of one revolution, after which the use of the former **Twist** function becomes necessary.

Contour Mapping is now available, with the "height" of the map being defined by the intensity value of a map pixel. For example, by using the blend function to paint a white square onto a black screen, and then defining the result as a "map", any brush can then be contour-mapped onto the shape of the resulting map, which in this case would be a small hill, with the highest point corresponding to white, and the lowest black. The three dimensional orientation of the contour can also be varied by using the mouse to vary the 'pitch' and 'roll' of the contour before the brush is layered over it.

The effects that can be created with this tool alone are astounding and can be further enhanced by combining contour mapping with the Luminosity function and define a light source and direction falling onto the resulting map. One of the big improvements in the program is the **Luminosity** function, which previously did not allow for variable contrast or dithering to blend the light source with the subject.

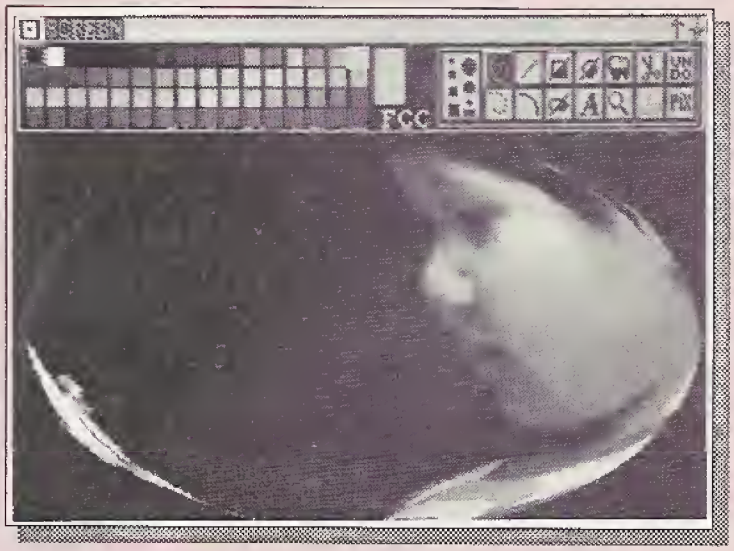
This is now possible with 'variable sliders' and can be adjusted from a scale of 0-15. A **Fine Shade** option is also now available, which allows far more than the previous limit of 16 shades of light intensity variation, this is cleverly achieved by additional variation of the hue and saturation values.

An additional menu **Special** has sev-



eral new features. The first of these is **Cycle Draw** which cycles palette colours and can be used in conjunction with nearly all of the drawing tools. **Stencil** allows the user to define an area on the screen which will not be affected by any painting operation, the area can also be 'inverted', so that the area outside the defined shape is then protected. **Grid** lets the user define an invisible grid upon which lines, brushes and shapes can placed.

Shadow is the last item on this menu, and allows a 'shadow' to be automatically drawn behind any object. The length and orientation of the shadow can be easily defined by the user. Where this feature comes particularly handy is when combined with text, which can quickly be given a professional 'drop shadow' look while you type.



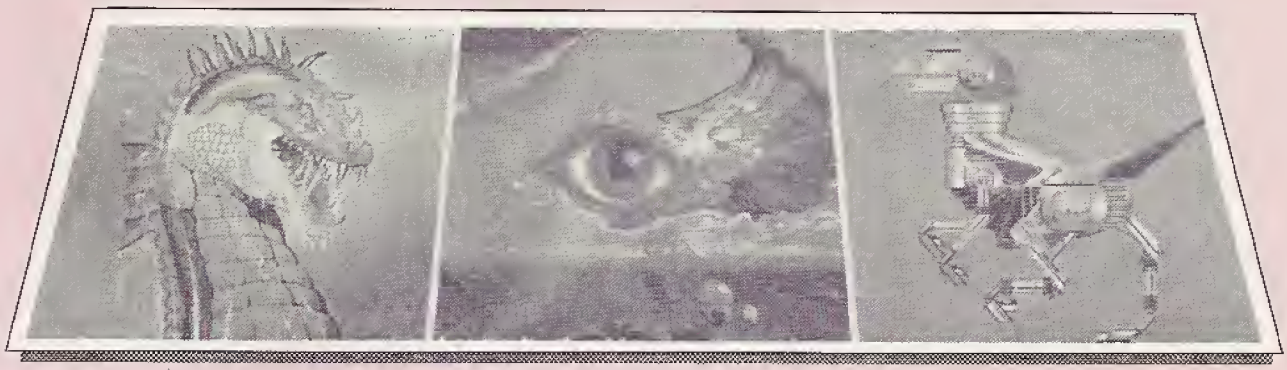
The **Mode** menu has also undergone several changes, the most prominent being the addition foreground and background painting modes/menus. Within each mode there are additional sub-items of **Maximum, Minimum, Use H, Use H&S, And, Or** and **Xor**. This somewhat daunting selection of sub-items allow the user to compare the hue and saturation of the applied colour to the underlying colour, and depending upon the operation selected the screen will alter depending upon the comparison applied. For example, by selectingmaximum, if the colour applied has an RGB value less than the underlying screen, the screen will remain unchanged.

The **Blend** function has seen some major revisions with the most notable being **Gradient** which will render any filled shape with a spread of colours from background to foreground colour. **Source** is another mode item and the user define the source of the pixels used in the current drawing operation. Sources available are **Colour, Pattern and Panto** and **Under.**

Colour uses the currently selected foreground of background colour. Pattern uses the current brush in memory. Panto creates a pantograph type operation which is rather like a tracing tool from one screen location to another. Under creates a 'rub-through' operation from the alternate to the current page.

Photon Paint 2.0 is a very professional product. Microillusions have taken the time to expand and reorganize the manual as well as add tutorials to cover the numerous additional features and operations of this already fine package. This is one paint program that should be in every Amiga owner's library, and by allowing registered version 1.0 users an inexpensive upgrade path this package will no doubt achieve that status easily. ❑

Distributed by OziSoft (02) 211 1266.
RRP $199.95.



Expanding your Amiga 500

Commodore's A590 Hard Disk and Expansion Unit

by Dr Greg Perry & Ralph DeVries

MOST OF US agree that the Amiga 500 is a great machine. However, almost immediately new owners start to look for extra RAM (Random Access Memory) and a second disk drive. Fortunately the Commodore A501 512 Kbyte RAM expansion module (complete with battery backed up clock) is available at a very reasonable price, and a second disk drive can now also be purchased for under $300.00.

Even so, as the software base expands to take advantage of the amazing capabilities of the Amiga, this 1Mb, two floppy drive configuration can still be a severe limitation when it comes to running the more serious 'productivity' and graphics software especially when multitasking several applications at once.

'Power' users will next be on the lookout for more RAM and a hard disk drive. Up till now availability of these items has been a rather haphazard affair in Australia. Although it has been possible for some time to buy memory expansion units and hard drives from a limited number of local and imported sources, concerns about supply and the lack of support from local dealers and distributors have meant that many A500 owners are still waiting for something with an established pedigree to appear. This is now about to happen with the forthcoming release of Commodore's own A590 unit. The unit combines a 20 Megabyte hard disk drive unit with an (unpopulated) memory expansion unit, which can be built up to take another 2 Megabyte of RAM.

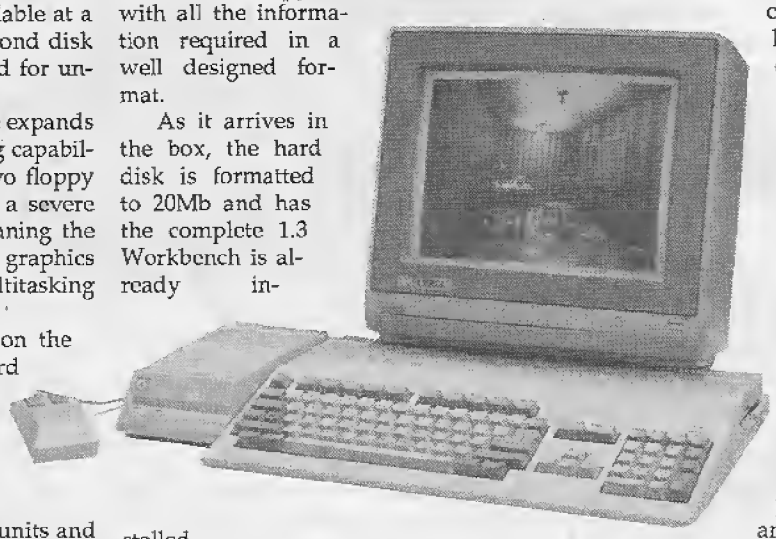
Commodore Australia were kind enough to loan us one of their sample units for evaluation, and let it be said that immediately we plugged it in we were impressed.

Initial impressions

● The A590 comes in a beige case which matches the appearance and colour of the 500 and looks quite neat when it's attached to the 86-pin systems bus on the left side of the Amiga. This unit comes complete with its own separate power supply which is automatically switched by the A500.

If the final manual is anything like the preliminary copy we have seen, the user will be supplied with all the information required in a well designed format.

As it arrives in the box, the hard disk is formatted to 20Mb and has the complete 1.3 Workbench is already installed.



Unlike with the A2000/2090 systems, you don't have to mess about with foreign things such as 'mountlists' and Prep/Format commands etc, nor do you have to plough through the manual with trepidation on what to do first. At last, all you have to do is plug it in and turn on the A500 and 20 seconds or so later you are greeted with workbench. (NOTE: Only applies for Kickstart version 1.3. Users of version 1.2 must boot from the floppy disk supplied.)

Of course, a better idea would be to actually to read the manual first!

Inside the A590

● Inside, the A590 has an Epson HD755 20Mb hard drive and HMD755 SCSI controller, as well as an XT (ST506) interface. Sockets are provided so that system memory can be expanded in steps of 512 Kbytes, 1 Mbyte or 2 Mbytes. To populate it you need the 256K x 4 DRAM chips with a speed of 120 ns. or faster. At present day prices one should be able to purchase the 2 Megabytes of RAM for approximately $500.00. (July 89, but memory seems to be coming down in price?)

If you are not technically inclined it pays to have the memory chips installed by a qualified technician as they are very susceptible to static charges (especially in this weather). It is not unknown for people to 'blow' them during installation. However, if you feel competent, the manual has explicit instructions on how to go about the job and which jumpers to set, depending on the amount of memory which you are installing.

Another internal jumper will have to be set if you wish to use the alternative standard SCSI interface instead of the XT interface.

External

● On the back of the unit are four dip switches, the power connector, and a standard 50 pin SCSI connector allowing you to add up to seven SCSI devices onto the system. (A SCSI - Small Computer Systems Interface - bus is similar in some respects to the 64/128 serial port, in that each device has its own unique device number allowing easy daisy-chaining of hard drives, printers, scanners, CD-ROM drives etc.) Before you can start using your hard drive certain dip switches have to be set on the back of the unit, depending on your system's configuration.

Switch one needs to be set for either Kickstart version 1.2 or 1.3. If you are us-

ing Kickstart version 1.3 you can 'auto-boot' with the 590. This means that, when you switch your computer on, the hard drive will automatically boot up without having to insert a Workbench disk in drive DF0.

Switch two has to be set if several units use the same physical address space, as the system only expects one 'Logical Unit Number' or one unit at every physical SCSI address.

Switch three is only needed for certain expansion hard drives which take more than 30 seconds to come up to speed (e.g. certain Seagate drives); this is the so-called 'Time-out Length' switch. (On the 2000/2090A systems, this function is not available so for auto-booting one must make a careful choice of hard drive unit itself!) Switch four is not currently implemented, it's for future expansion.

The hard drive

● As supplied, the hard drive comes formatted under the FastFileSystem. An internal DMA (Direct Memory Access) chip gives you a theoretical maximum data transfer rate of 2.4 Megabyte per second. Interestingly, this is the first auto-booting controller from Commodore itself which allows booting directly from the FastFileSystem. With the 2000/2090A systems one must have a 'standard file system' partition on the start of the drive to auto-boot from. Commodore are working on a 'hard-card' for the A2000s to be named the A2901(?) and from looking at the driver software with the A590, it would appear that the A2091 may well be based on this A590 interface.

Since we have read several adverse comments about the slow data transfer rates of these particular Epson drives, the performance of the interface appears to be quite effective achieving very respectable data transfer speeds. (See below for the actual performance figures.) Unfortunately, because of time constraints we have not yet been able to test out the SCSI interface part of the unit.

To most users performance figures really mean very little, so a couple of examples may give you a better idea. The *Page Stream* program comes on two floppies and takes 2 minutes and 30 seconds to boot up. The same program installed on the 590 takes only 26 seconds! That is more than five times as fast and is quite impressive. For a second example, *Professional Page* loads from the A590 in approximately 35 seconds compared with more than 3 minutes from floppy.

Hard disk software

● As we have said the hard disk is supplied formatted and has the complete 1.3 Workbench is already installed. Supplied with the unit is a 3" 'A590 Setup' disk. This is a bootable WB 1.3 disk containing all that is required for Kickstart 1.2 users to boot the drive plus extra utility software you may require should you ever need to setup, format the drive, or perform other functions such as adding extra drives etc. (NOTE 1.2 Users: You MUST boot from this disk since it contains all the device driver software for the interface and definitions for the hard drive itself.)

Programs include Park and HDToolbox and several 'clickable' XICON script files are provided to make life easy. These include FormatHD, PrepHD, InstallHD, InstallStartup, MakeBootDisk.

Unfortunately, the A590 interface and driver software does not provide an 'auto-park' option as does the 2000/2090A. The PARK program 'parks' the read/write heads of the hard drive out of the way of the data tracks providing a safe landing zone for the heads when the drive is switched off. This program should always be run before you transport the unit to prevent both damage to the unit, as well as loss of data. The InstallStartup script will copy the 1.3 Startup-sequence on your hard drive. The MakeBootDisk script is used if you are still using Kickstart 1.2. (Probably a good time to install 1.3 Kickstart to make use of the hard drive's auto-boot facility.)

If you wish to make changes to the partitioning of the drive or add new drives to the unit (including via the external SCSI connector), the HDToolbox program provides a relatively friendly solution. This program is a dramatic improvement over the A 2000's 2090A where all such changes must be done using a text editor and 'mountlists'. The software also permits validation of the drives and mapping of defective blocks etc. All these programs, as well as an explanation of hard drive terminology, are very well documented in the manual that comes with the unit (Commodore's manuals have definitely improved over the last couple of years). *Continued on page 20*

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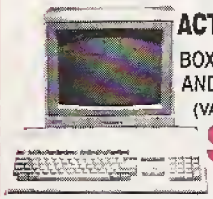

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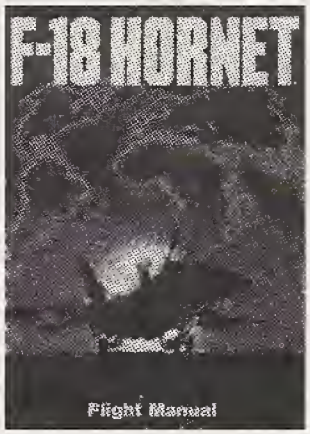

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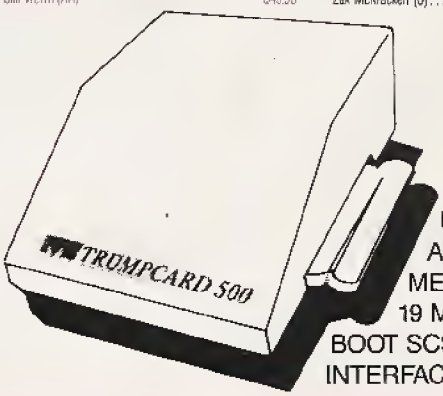

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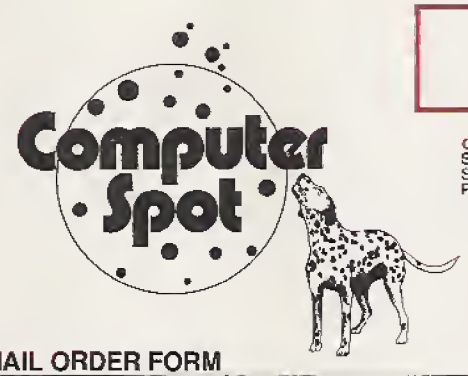

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The only omission from the 'Setup Disk' is a hard drive backup program, but fortunately there are quite a few good Public Domain programs available, as well as some excellent commercial ones.

Performance tests

● We have experimented with the A590 for some time now under a wide range of conditions. The unit has behaved well on all tests we have thrown at it. The access and load/save times for this unit compare favourably with most other drives and interfaces of a similar type available on the A500 and A2000 systems. If anything the interface appears to perform slightly better than the A2090A auto-boot interface for the A2000 and equally as well as various third party A500 units. Considering that the actual hard drive in the A590 is not the fastest in the world, the overall results are well up to standard. It will be interesting to see how well it performs when connected to one of the better SCSI drives such as the Quantum HQ80s which achieves transfer rates of the order of 650K/sec on the A2090.

To show the relative performance of the A590 unit, we used the PD program 'DiskPerf2'. We have been using this program for several months to compare different drives and interfaces available for the Amigas and it gives a fair idea of performance.

One severe problem with the A2090 and A2090A interfaces for the A2000 is the unbelievable slowdown when the Amiga is displaying a large 4 bit-plane (16 colour) image. (The 2090A is even worse than the 2090! This appears to be due to the fact that the intermediate drive buffers are allocated by the auto-boot code into 'slow' memory.) This problem is caused by bus contention between the Amiga and the DMA from the drive. It is most evident with SCSI type drives. For example, when displaying large overscan multicolour images for video graphics work, we have measured a speed drop from 450K/sec to LESS THAN 10K/sec, a more than 45 times slow down to less than the speed of a floppy drive! With ST506 type drives (similar to the drive in the A590), the problem is not so evident. (Commodore have no intention of fixing this problem at present, apparently because they are working on the A2091 hard-card!)

Tests on the A590 showed only minor slow down (approximately 10%) under these conditions.

The following results should be treated like most standard tests, in that they only reflect the results of these specific tests. However, they do give a good indication of the type of performance one can expect from the unit. But, go and see one demonstrated for yourself! We have included diskperf results for a standard floppy drive (running under the 'standard file system') for general interest and by way of comparison, the results for a 2000 with a 2090A interface with a Miniscribe 3650 44Mb hard disk combination.

Overall comments

● One comment that has been made is that "it's only a 20 Meg hard drive", and to some extent this criticism is justified, but let us take a quick look at the facts...

A 20 Megabyte hard drive is equivalent to about 22 3" disks. If you intend to install a series of application programs on the hard drive, you will find that you can install a lot more than 22 disks on the A590, because you need only one copy of the Amiga operating system on this disk (i.e. one C directory, one DEVS directory, one LIBS directory etc.). In fact, you only install the actual program and its associated files and not the operating system. This can mean a saving of up to 50% in disk space, so you may well find that you can install 30-35 3" disks on the 590, which should take care of most of your important programs.

Programs such as *Professional Page* and *WordPerfect* with its dictionary and thesaurus and compilers such as Lattice C are far easier to use on a hard drive.

On a 20 Meg drive one could instal the maximum amount of program disks and save some data to 3" disks; however you may well decide to have a smaller range of programs on the 590 and save your data as well to the hard drive.

The A590 turns the 500 into quite a powerful computer. It is the logical extension for users who have outgrown the 'standard' 500. Unfortunately, at the time of writing Commodore were unable to give us a release date or retail pricing. Rumours suggest that the price will be in the $900-$1400 price range but who knows?.

Obviously the price will to a large extent determine the success of this unit in the market place.

If it turns out to be a commercial success, we would not be at all surprised if Commodore would in due course release one or more alternative versions with different capacity hard drives. Third party suppliers should also be able to supply larger capacity drives without difficulty, depending on your wallet!

We can see one major problem for Commodore when they release this unit. What are they going to do with all those A2000s that will end up gathering dust in the back of the warehouse!

The only regret is that after using this nice little unit for some days we have to return it. Once you have used a hard drive on the Amiga, life is simply impossible without one!

We wish to extend our thanks to the people from Commodore Technical Support at CBM Sydney for making the A590 unit available for testing. ❑

Disk Performance Tests on A590

	A590			2090A/Miniscribe
Create	11 file/sec	Scan 95 file/sec		C 11 S 94
Delete	19	Seek/Read 56		D 38 S/R 86

	A590		Floppy		2090A/Miniscribe	
Buffer	Read	Write				
512	16,010	15,100	8,260	3,504	47,489	19,661
4K	99,826	74,472	12,192	5,060	100,824	84,399
8K	129,774	91,658	12,358	5,100	122,497	97,814
32K	180,415	105,445	12,315	5,067	154,202	109,867
64K	180,415	126,030	*	*	154,202	109,546
256K	189,137	152,409	*	*	157,349	115,686

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An introduction to Kermit

by Kent Sullivan

We recently learned of the arrival of Commodore 64/128 Kermit v2.2. Our thanks to Kent from the U.S.A who has been kind enough to contribute the following article.

What is Kermit?

● The term "Kermit" denotes two separate, yet related concepts: (1) a specific protocol (that is, a standardized set of communication rules) for transferring files between computers, and (2) a certain group of computer programs which feature the Kermit protocol. The Kermit protocol has a much different background than other protocols, like X-Modem or Punter, with which you may be more familiar.

Kermit was developed in 1981 by Frank da Cruz at Columbia University in New York. Mr da Cruz developed Kermit so that the computers at Columbia would have a method of talking to one another and exchanging files. The computers at the university had many different hardware architectures and operating systems which prevented them from easily communicating. Because of this, Kermit is a very flexible protocol-practically every component of the file transfer process can be adjusted.

The Kermit specifications were made freely available, and a wide assortment of programs have been written which implement the Kermit protocol. There are over 300 different implementations of Kermit now available, from most all mainframe and mini-computers to a good number of microcomputers. It is a tribute to the flexibility of the protocol that Kermit is able to run on such a wide array of machines.

All of these programs are freely distributable, and are available from many sources, including the official distribution headquarters at Columbia (see the address below). There are even a number of commercial telecommunications programs for PCs which now offer the Kermit protocol as an option.

Commodore 64/128 Kermit v2.2 is the latest in a long line of updates for the original Kermit for the C-64, released in 1984. (Just as an interesting note, the first version of C-64 Kermit was ported over from Kermit for the Apple II.) C-64/128 Kermit is in the public domain, and may be freely distributed. Ray Moody and I have been involved with C-64/128 Kermit since v2.0. Support for the enhanced features of the Commodore 128 from C-64 mode was added beginning in v2.0. In other words, the program operates in C-64 mode on a C-128. Below is a discussion of the uses and features of C-64/128 Kermit.

Why would I want to use C-64/128 Kermit?

● C-64/128 Kermit has two main audiences, which often overlap: (1) People who need to use the Kermit protocol to exchange files (usually with a large, multiuser computer), and (2) People who need reliable DEC VT-52/100/102 terminal emulation so that they may use their C-64/128s as terminals into mainframe or mini-computers. There is also a third, smaller audience: People who need 80-column terminal software for their C-64/128s.

Early users of C-64 Kermit (i.e. prior to v2.0) used it primarily because it was (and still is) the only telecommunications program for the C-64 which supports the Kermit protocol. Many people in university settings, for example, work on large machines which support only the Kermit protocol. C-64 Kermit was the only error-free way for them to transfer files from their Commodore 64 (often at home) to work, or vice versa.

Beginning with v2.0, however, Ray recognized that many people needed to not only transfer files, but to have a "terminal on the cheap", so that they could actually do work from home without the cost of buying an expensive, dedicated terminal. Early versions of Kermit did support the DEC VT-52 terminal, but the implementation was buggy and non-standard, making it hard to use. C-64/128 Kermit v2.2 features a full implementation of the DEC VT-100 (long known as an industry standard), and also includes full support for the VT-52 mode of the VT-100, plus a few VT-102 "extras".

C-64/128 Kermit is one of only two terminal programs for the C-64 which support the VT-100, the other being a commercial program, *Emulator.100*, by Louis Leff. A couple of programs with VT-100 emulation now exist for the C-128-see the sidebar for details).

Special features

● Besides support for the Kermit protocol and DEC VT-52/100/102 emulation, there are other unique features of *C-64/128 Kermit*. Each of these features, while perhaps interesting to only a small number of people, help distinguish *Kermit* as a unique program. The main features are:

● Support for a wide variety of screen types. *C-64/128 Kermit v2.2* supports 40 and 80 column output (through hi-res graphics) on a C-64, the built-in 80 column display of the C-128, and is the only terminal program to support the Batteries Included 80-column display for the C-64. (note to ed.: was this ever available for PAL machines? If not, you can take it out I think.)

● Support for a wide variety of file types. C-64/128 Kermit has special file types for easy transferring of:

● Regular ASCII text files

● Commodore PETSCII text files

● "Speedscript" (the popular word processor from Compute!) files

● Binary (memory image) files, such as BASIC programs

● "C-Power" (now known as "Power-C") C language source code files

All necessary character conversions are handled automatically with each of these file types.

● 2400 bps support when using the C-128 screen. C-64/128 Kermit v2.2 is one of a few terminal programs which reliably support communication speeds above 1200 bps. We are currently working to allow this option when using the C-64 screen as well.

● Limited support for the Tektronics 4010/4014 graphics terminal. C-64/128 Kermit v2.2 emulates the main features of a Tek graphics terminal, allowing you to preview graphs and charts generated by some mainframe graphics programs. A resolution of 320 x 200 is supported on the C-64 screen, and 640 x 200 on the C-128.

Why would I NOT want to use Kermit?

● Because of the focus on terminal emulation, the Kermit protocol, and special file types (all of which take a lot of memory), C-64/128 Kermit lacks some of the features found in many C- 64/128 terminal programs. The major shortcomings are:

● No capture buffer
● No printer support
● No phone book
● No support for the CBM 1660 modem (or compatibles)
● No macro support.

In the future, Ray hopes to incorporate these features, plus add remote server and long packet capabilities to the protocol. This will require a lot of work, and will probably result in two separate versions of Kermit, one for the C-64 and one for the C-128.

Note: with the recent help of some friends with PAL equipment, C- 64/128 Kermit v2.2 will work reliably on Australian C-64s and C- 128s. We previously did not have any way to fine tune Kermit-a big "Thank you" to those who helped!

Columbia U. address

● Information concerning all of the known Kermit implementations may be obtained from:

Columbia University Center for Computing Activities,-Kermit Distribution, 612 W. 115th St. New York, NY 10025 U.S.A.

Columbia distributes Kermit on large magnetic tapes for mainframe installations, and can also provide lists of people providing Kermit on native media. They also publish the "Kermit News".

Where to obtain C-64/128 Kermit v2.2 in Australia

● Paul Leicester 7 Henryk Dr. Hillbank Adelaide South Australia 5112

Send Paul $5.00 and he'll send you a disk with Kermit v2.2 and on- disk documentation. If you would like the laser-printed version of the manual, send $10.00 US to:

Dr. Evil Laboratories P.O. Box 3432 Redmond, WA 98073-3432 U.S.A.

C-128 VT-100 emulators

● Two native C-128 mode programs have evolved recently, and now_provide accurate VT-100 emulation on a C-128: "VT-100/128 v2.1" and "Desterm v1.02" (just now being released). V2.1 of "VT-100/128" is an updated version, by Fred Bowen, of the program found on the CBM 1670 modem software disk. Note that versions previous to 2.1 are buggy and do NOT provide accurate VT-100 emulation. (Also, even in v2.1 no VT-52 terminal support is provided). This program supports 2400 bps and 4800 bps. VT-100/128 v2.1 is to be shipped with all new 1670 modems (along with Common Sense, and, as an added feature, Kermit v2.2). Also, it can be found on bulletin board services such as Quantum Link, People Link, and CEnie.

"Desterm v1.02" is the newest version of a program written by Matt Desmond of Waterloo, Ontario, Canada. Earlier versions of this program had some VT-100 emulation problems. "Desterm v1.02" also supports IBM ANSI graphics and 2400 & 4800 bps reliably (it even supports 9600 bps, but only in half duplex). It is shareware and may be obtained for $25.00 US from:

Matt Desmond
265 Beechlawn Dr. Waterloo, Ontario N2L 5W8 CANADA

BBS (The Spanish Inquisition): (519) 747-5322

Both of these programs have user-adjustable baud rates, so they can be "tuned" to work on both PAL and NTSC C-64/128s. ❑

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Wordpro 128 w/Speller w/Filepro	79
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Wordwriter 128	59
Vizistar 128	69
Write Stuff 64	40
Write Stuff 64 w/Talk	49
Write Stuff C128 Version	49
Viziwrite 128	59

EDUCATIONAL

Alphabet Zoo	35
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Counting Parade	12
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Ernie's Magic Shapes	16
Evelyn Wood Dynmaic Reader	30
Facemaker	32
First Men on Moon Math	39
Grandma's House	12
ESP Tester /64	36
Jungle Book (Reading 2)	37
Kids on Keys	37
Kidwriter	44
Kindercomp	39
Linkword German	39
Linkword French	39
Linkword French 2	39
Linkword Italian	39
Linkword Russian	39
Linkword Spanish	39
Little Co puter People	39
Mathbusters	12
Mavis Beacon Teaches Typing	65
Peter & Woll Music	39
Peter Rabbit (Reading 1)	39
Readder Rabbit	60
Sky Travel	72
Stickybear's ABC's	43
Stickybear Numbers	43
Stickybear Opposites	43
Stickybear Typing	43
Stickybear Shapes	43
Fun Biorythms	8
Morse Code	8
Numbers Show	29
Grover's Animal Adventure	15
Kidsword	69
Toy Shop 64	49
Where in Europe is Carmen Sandiego	69
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Widham Classics Alice/Wonderland	23
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Printshop 64	72
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Ocean Ranger	40
Operation Wolf	44
Platoon	45
Powerplay Hockey	45
Rampage	52
Rocket Ranger	49
Roger Rabbit	35
Scrabble	49
Scruples	45
Skate or Die	39
Three Stooges	49
Ultima V	64
Wheel of Fortune 2	23
Zach Macrakin	40
Zoom	45
Monster Power	22
Moon Goddess	29
Sex Vixens from Space	43
Three Hours to Live	15
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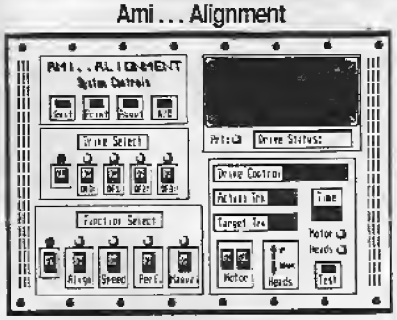

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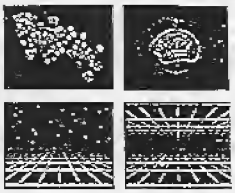

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Black, Cyan, Magenta, yellow	11
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Kid Talk	55
Kinderama	75
Linkword: French	43
Linkword: German	43
Linkword: Italian	43
Linkword: Spanish	43
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Perfect Score SAT	115
Puzzle Storybook (The)	59
Read & Rhyme	75
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Smooth Talker	59
Speller Bee	59
Surgeon	72
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AD&D Heroes of the Lance	59
Annals of Rome	55
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Bard's II: Clue Book	25
Battle Chess	64
Alien Syndrome	59
Ballistix	50
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Breach	59
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California Games	69
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Reach for the Stars	58
Rocket Ranger	58
Roger Rabbit	58
Romantic Encounters Dome	58
Rubicon Alliance	43
SDI	75
Scrabble	58
Sex Vixens from Space	40
Sex Vixens Hint Sheets	5
Shadow Gate	72
Shanghai	58
Space Quest 2	75
Space Station Oblivion	72
Star Fleet 1	79
Star Glider 2	58
Stellar Conflict	58
Strip Poker II	47
Sword of Sodan	72
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Three Stooges	82
Time & Magic	58
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Zak McKraken	65
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Icon Paint	58
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Lights, Camera, Action	125
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Sound Oasis	143
Sound Sampler	143
Soundscape Pro Midi Studio	215
Studio Magic	143
Synthia	143
Texture	213

UTILITIES/LANGUAGES

64 Emulator 2/Amiga 500	86
64 Emulator for Amiga 1000	86
A Talk Plus	115
AC/BASIC v 1.3	279
AC FORTRAN	422
Amiga Workbench 1.3	43
Amikit	58
Amiga Alignment System	59
Amiga DOS Toolbox	86
Arrexx	72
Assempro	143
Aztec C Developer Compiler	429
Aztec C Professional Compiler	285
Aztec C Source Level Debugger	108
BBS PC	215
Benchmark Modula 2	259
Benchmark Modula 2 - Simp A Lang	130
Benchmark Modula 2 - IFF Library	130
Butcher 2.0	55
CAPE 68K v2.0	129
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Cygnus Ed	119
DOS-2-DOS	79
DSM	97
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Using the 1351 Mouse

by David Williams

I HAVE HAD my 1351 proportional mouse for over a year now, and still think that it is a wonderful device. However the only programs I have that support it are GEOS and several things typed out from American magazines.

At this point I must digress. For people who have not seen any American computer magazines, they usually contain a few pages of tips sent in from readers. These can be quite useful at times, but the two that I shall quote were extremely grating. A tip once read that it is possible to use the mouse as a joystick, by powering up with the left button held down. The author then went on to say that this is not mentioned anywhere in the manual. That just goes to show how well he read it!

> "My real point in this article is to explain how to use the mouse in your own programs."

Another one said how the mouse can actually be taken from a joystick port and put into the other, without turning the computer off. I am very surprised that these things were even published. I thought I should mention them just in case anyone else did not know of either ability.

The 1351 is certainly an improvement over its predecessor, the 1350. That was simply a joystick in the form of a mouse. No doubt you know that a mouse has a small ball, and that this must be rolled along a surface for a signal to be sent. This makes it very hard to use in racing games, for instance, where the joystick must be constantly held forward in order to accelerate. This means that the mouse must be rolled forward, picked up and move backwards, put back down and pushed forward again. Needless to say, this does not make for high velocities!

The 1351 in joystick mode is exactly the same. This mode is achieved by setting a digital switch for a period of 20 milliseconds. This means that all the computer receives is a signal : up, down, left, right, fire and any logical combination of these. The proportional mode, however,

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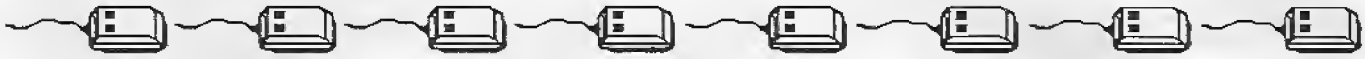

gives an analog signal. This is also the type of signal that paddles (remember them?) used to use.

It is continually telling the computer the mouse's x and y co-ordinate and its speed, every 512 microseconds. This is a better state of affairs, and add to this the fact that it has two different buttons. A joystick may have several, but they all have the exact same use.

Now, my real point in this article is to explain how to use the mouse in your own programs. This, obviously, is just like reading a joystick, if it is in joystick mode. Proportional mode is much different. One way to read its position is to use the POT function of the 128, which "returns the value of the game-paddle potentiometer". This would be done by

```
:X=POT(1)AND
127:Y=POT(2)AND 127
```

which limits you to 127 plot points horizontally and vertically. This is also a hard method to make much sense from. Try plugging a mouse into port one and typing :

```
DO :PRINT POT(1)AND 127,POT
(2)AND 127:LOOP
```

A series of numbers will then appear in two columns. Move the mouse around and watch these change. This should give you some idea of how to use this method.

A much simpler way, though, is to use the routines provided on the disk that came with the mouse. If you have a Commodore 128, copy the file "mouse128.bin" to your work-disk, or "mouse64.bin" for (logically) the 64. These are machine language drivers for the mouse in port one. They are interrupt driven, and will move sprite zero. This can be seen through example.

LOAD or BLOAD the correct file for your computer. This can now be activated by SYS 49408 for the 64, or SYS 6144 for the 128. The driver is now operative! However, unless you have been playing with sprites prior to doing this, nothing will be on the screen. Sprite 0 needs to be enabled. This is done by

```
POKE53269,PEEK(53269)OR 1, or
SPRITE 1,1.
```

A sprite will appear! It will most likely be a random pattern. What you must do is define a sprite and place it somewhere in memory, and then set the sprite pointer to this.

All 128 owners need to do however is just draw it using the SPRDEF command, and answering '1' to the sprite number prompt.

You may have noticed a strange syntax for the Commodore 128. The first sprite is known as sprite zero, yet you had to refer to it as sprite one to turn it on, and to draw it. This is because BASIC 7.0's sprite commands use the numbers one to eight, whereas virtually everything else calls them zero to seven. You'll get used to it.

Now, by moving the mouse around you'll find that the sprite does too! It even wraps around if you go across a border. But how do you know where it is? The answer is simply, just to retrieve the co-ordinates for sprite zero. This is (on the 64):

```
X=PEEK(53248)+256*(PEEK(53264)AND
1):Y=PEEK(53249)
```

and on the 128, just :

```
X=RSPPOS(1,0):Y=RSPPOS(1,1)
```

Okay, so far so good. But it has two useless buttons at the moment. How do we know which one has been pressed, if at all? Well, if you have used your mouse in its joystick mode, you will know that the left button is equivalent to the fire button on a joystick. This does not change. So, in proportional mode, the left button is pressed if :

```
PEEK(56321)=239
or
JOY(1)=128
```

which are the commands to check the fire button on a joystick in port one. As said, a joystick only has one button really, and so the right button is the same as pushing up on a joystick, ie if:

```
PEEK(56321)=254
or
JOY(1)=1
```

Now, what if both buttons are pressed at the same time? In that case, the computer receives a fire and up signal: Or in BASIC syntax :

```
PEEK(56321)=238
or
JOY(1)=129
```

So now you know how to use a mouse. There is a small problem though. The 80 column screen on a 128 does not have any capabilities for sprites, which is rather a waste. GEOS 128 uses the 80 column screen and has a pointer somehow. I have not yet seen the program (I'm waiting for version two before I upgrade from 1.3 on the 64) and I do not know how it is done. All is not lost!

A keyboard character could be moved using the above method, and the CHAR command. A sprite would still be floating around on the 40 column screen, but that does not matter. The cursor could even be moved around. It is a relatively unknown fact that the cursor can be enabled from a program by one of the four cursor related ESCape commands. Try this :

```
10 PRINT CHR$(27)"S
RUN
```

and a solid cursor will start flashing. Pressing RUN/STOP will indicate that a program was running, and the cursor was flashing in program mode. The other commands are U for an underline cursor, E for a non-flashing cursor (solid or underline) and F for a flashing cursor. These come in quotes after the CHR$(27) which is the ASCII value for the ESC command. Pressing ESC T in direct mode is just the same as CHR$(27)"T in program mode.

There is one more thing to say. If you have wiggled a joystick in port one in direct mode, you will have found strange characters come up on the screen.

The mouse in port one also interferes with the keyboard, in that the left button gives an F8 keypress. This should explain why many 128 owners will find themselves in the MONITOR unexplainably. F8 is defined as "MONITOR" and a carriage return, CHR$(13). This can be avoided by a KEY 8,"" command, or can even be used to advantage by setting F8 as a key such as the up arrow by KEY 8,"^". The left button can then be read with a line such as

```
GET A$:IF A$="^"THEN ...
```

The 1351 Mouse is certainly a fine addition to the Commodore range. ❑

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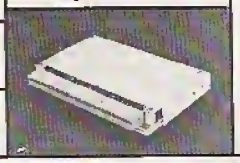

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Aegis Amiga Graphics Starter Kit

by Eric Holroyd

BILLED AS THE complete graphics starter kit for the Amiga family', this four-disk set has all you need to start producing still pictures and animations. The Clip Art disk has loads of ready-drawn items which you can assemble into scenes and pictures so you don't even need to be an artist. This was great for me because I'm absolutely useless at drawing anything more than the figure used in the Hangman game!

Images

● The first disk contains the *Aegis Images* and *Aegis Animator* programs. Images is a very good drawing program and lets you draw rectangles, circles and other types of shapes as well as drawing freehand with lines. You may use 32 colors from the full Amiga palette of 4096 in a variety of drawing pens (20 in all) and there's 16 different ready made patterns to use as fills too (or you may even design your own patterns and save them for future use).

A number of nice effects are possible such as Airbrushing, Wash - blends colours as if you're using water paints, Transparency - makes it appear as if you're looking through smoke or coloured glass, and Smear - a bit like finger painting in effect. All pictures may use Color Cycling too.

Very accurate drawings/paintings are possible by use of the Grid and Zoom features which let you get really close up to the individual screen pixels for fine detail work. I liked the Frame feature which lets you do just that to a section of your picture, then move it around, flip it, resize it, use it as a brush etc as well as save it as a Window or Frame to be used in other paintings if you wish. The Mirror command got me in too. This lets you divide the screen into sections then duplicates your painting in each section.

Another major feature of *Images* is that you may work on two pictures at once by using the Swap Screen command to flip back and forth. The two screens are completely independent of each other and may use totally different colour palettes.

As with most good Amiga software there's a system of pulldown menus. A very handy adjunct to this is the Fast Menu which is a regular Amiga window containing colour selectors and oft-used commands which can be simply clicked for a speedy response. I found this to be most useful and a feature I haven't come across before.

Animator

● *Aegis Animator* (on the second disk) also uses the Fast Menu system and works by building an animation "script" on a "storyboard" system of splicing animations together. Animations are hungry on memory so the more memory you have in your Amiga the better. The Status button will display how much memory you have left when you're working and it's a good idea to keep an eye on this. There's a menu of choices for drawing shapes such as Stars, Circles and multi-sided Polygons which you use for animation production, also commands for Clone - it makes an exact copy of a picture component, and Destroy - which lets you remove a creation from your animation.

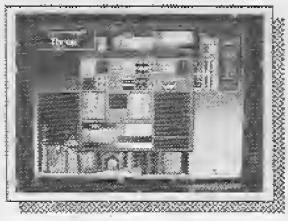
Animator's manual is nothing short of excellent and I found it extremely easy to use. It has a section on "Creating a quick animation" which is a very helpful introduction into this fascinating subject. The tutorial has you using a four-sided polygon to make an animation of a kite flying. It's very easy to do, and it's very effective too.

As I said earlier, there's an Artpak disk with loads of images already made with things like: Vintage Cars, Airships, Dinosaurs, Military, Animals etc which you may use in the *Animator* or *Images* programs. There are even backgrounds that you can use to make scenes too.

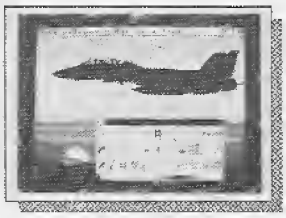
Draw

● The third disk contains the "Draw" software which is used for making very precise drawings such as blueprints or schematics. It's accurate to 1/1000th of an inch (work out the metrics for yourselves!) and lets you work with a system of grids and crosshairs on a single drawing or several drawings at the same time.

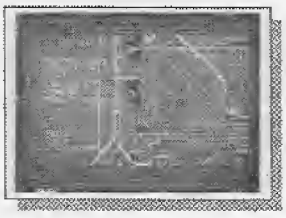
It really comes under the CAD heading (Computer Aided Design) and what it really does is automatically create a database of the elements of your drawing, as you create it, to allow you to view any section or sections at the same time. It all works on a "multi-window" system whereby the more memory you have, the more windows you may work on. If you only have 512k of memory you may open two windows for example. More memory



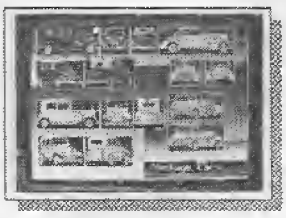
Images



Animator



Draw



Clip Art

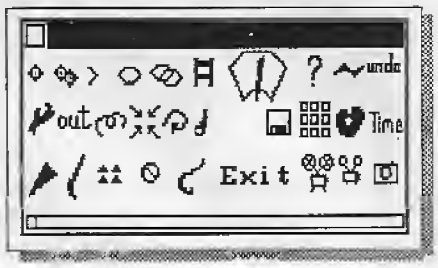
allows more windows and if you have a hard drive too you'll be able to install *Draw* on it as the disk isn't copy protected at all.

Draw's range of tools is impressive and allows Lines, Circles, Arc, Text etc as well as Freehand Drawing and a lot more. Again, there's a Clone feature plus Automatic Dimensioning. Units of measurement may be Metric or English (a very thoughtful touch this!) and there's a powerful Line Smoothing feature (also known as curve fitting) which really works well and ensures that the "jaggies" are smoothed out. With the Smoothing function turned on, a connected series of up and down lines in a row would appear as a Sine Wave for example.

CAD is becoming more and more popular as engineers and architects become more familiar and comfortable with it, and as I am neither of those I'm probably not in a position to appreciate and understand the finer points of the *Draw* software. I worked with it for a while, going through the excellent tutorial in the manual which had me designing an office layout with walls, doors and furniture etc. There were power points in the walls and even a water cooler in the finished layout and, as the whole thing is in colour, the tutorial had me using various colours to denote various items. The power points were dark blue, for instance.

There were a couple of drawings on the *Draw* disk to show the capabilities and they were extremely detailed. One, of a spaceship and spaceman with another craft in the background and with descriptive text was very well done indeed and drew itself in High Resolution "before my very eyes" from its own parts list and data base of instructions which is built automatically when a drawing is constructed.

All in all this is a very good graphics package and Amiga users either just starting out in graphics or perhaps stepping up from whatever art program they're currently using would be well advised to check it out. As a bonus, and to offer some relaxation from all the hard work you'll be doing (!) you get a copy of the adventure *Arazok's Tomb* on the fourth disk thrown in for free. ❑



Animator "fast menu"

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Easyledgers

Amiga Accounting made simple

by Damian Disney

WHAT A (financial) year! For some it was good, others bad, but common to all is the headache of end-of-financial-year bookwork. Let someone else have the problem, you thought - my accountant. He fixed everything up alright, made it all balance - but he wanted his pound of flesh also. Ouch, there goes your rebate.

Book-keeping is no fun at the best of times, yet an essential part of every business. Sybiz Editions have brought out *Easyledgers*, an innovative yet traditional system of book-keeping. "Books" on computer screens.

The screen is set out as a series of ledgers. Purchase Book, Sales Book, Ledger Book, Inventory Book. This simple layout removes confusion about which figures go where. Accounts are automatically updated and sales, purchases, inventory and general ledger are posted in one step. To use this software you need 1 meg of ram for up to 700 accounts (entries), a second drive for up to 1400 accounts, and for any more you will need a hard disk.

The software uses standard controls and shortcut keys as well as making full use of pulldown menus.

To help you get started a sample database is supplied for what appears to be a hardware company, useful for the purpose of demonstrating *Easyledgers*.

Handling a "Book"

● After opening up your accounts using your operator's password, you are given four books from which to choose. To start with we'll open the SALES book. In front of you appears an alphabetical list of customers. At the side of the book is a type of thumb index for different categories. This is common to all books. The sample book contains headings such as Public, Small Business, Government, Charities, Schools. Thumbing (clicking) though these is as easy as using a book, but a lot easier to find.

Each heading may have up to 80 pages, each holding 36 accounts, ample for most needs. Sales tax rates can be set for various institutions in up to 16 different categories. If you prefer to categorise the different areas of the business that are involved in a sale then up to 64 categories can be defined for this purpose.

Viewing an account

● Full details of each account can be viewed easily to handle any telephone queries in a matter of seconds. Double clicking on account name brings up name, address and contact information. Also supplied is their current, 30, 60 and 90 day balance, along with their credit limit. Two gadgets also appear headed Outstandings and Transactions. Opening either reveals the details of these for the current month.

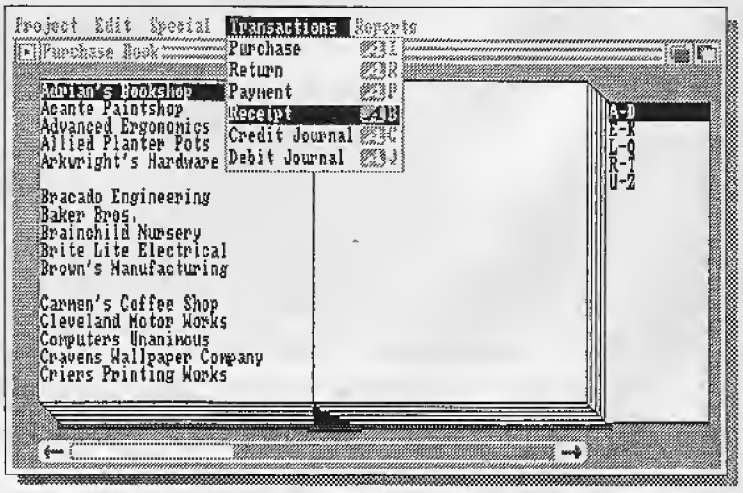
Processing a sale

● Credit For all sales/credits an invoice is printed either on customized or standard forms. A customer is selected by name or number and details are requested in order, such as destination, delivery instructions. The item of sale is selected from either the inventory or Ledger Books which are automatically opened at the appropriate time. When it has been selected it automatically appears on the invoice form. Tax rates that you have preset, say exempt for government, 10% trade, 40% retail are automatically calculated according to the customer but can be overridden at invoicing.

When the transaction is completed an invoice is printed and all relevant books are automatically updated (autoposting).

Inventory Book

● When selecting an item for sale you are taken to the Inventory Book. To find an item you can either manually view the contents page by page or use a search requester from the pulldown menu.



Therefore, if you know the title of an item you can just type it in and all occurrences will be located.

For instance if you were looking for Wallpaper typing that word would bring you to Wallpaper paste-1lt then Wallpaper paste 4-lt then Wallpaper-Geneva and so on until the desired item was found. The more detailed a description the quicker the search.

When the item is found double clicking on it will reveal a table that tells you the value of that item on hand, quantity on hand, cost, wholesale, retail and trade prices and turnover for the last three months. Transactions can also be viewed detailing who bought and supplied what and when.

Purchase Book

● Opening the purchase book and then the same item from the pulldown menu under transactions brings up an invoice form that needs the following information to be supplied. Invoice#; any number up to six characters, date, item, quantity supplied and value. Two radio buttons determine whether the information is to be posted to either the Inventory or Ledger Books. When selected the pages of the relevant book can be viewed and an item selected.

As with the Sales Book up to 24 items can be listed on each invoice. When all is finished a post purchase command will autopost the details in all the relevant books.

Ledger Book

● From the Ledger Book the state of affairs of your empire/company can be ascertained. This is useful because it lets you know in advance whether you are about to go into receivership, thus de-

priving your accountant of the joy and privilege.

Financial Statements can be accessed from the Reports pulldown menu. Any transactions that have been carried out since the last report appear in a new window under Automatic Postings. Following this another window appears for the selection of the output device be it Screen, Printer or Disk. Selecting the Printer option will produce your Profit and Loss Statement and Balance Sheet. The same information can be displayed on the screen for a quick view or transferred to disk for printing at a more convenient time. All books have their own reports that can give you Profit and Loss figures, Balance sheets, Transaction histories, stocktake entries and other information, up to 28 reports in all.

Two passwords need to be entered at the time the database is set up. The first password is for the operator and allows the Ledger Book to be opened and for transactions to be posted but does not allow viewing of the contents of the accounts or for Ledgers Reports to be printed. The second password for the supervisor allows access to all parts of the accounts.

The database as it is set out seems to be ideally suited to a business that needs to control inventories of stocks, and sales and purchases of goods. However, the program could easily be set up in such a way that those in service industries that are mainly concerned with labour would also find the program useful. The Sales Book could be used as a register of time and labour rather than goods.

The basic setup of the program is simple and the manual provides easy to understand instructions on use. A Help function is also provided that informs you of all your options at any point and explains how to carry them out. An excellent feature that is not incorporated into nearly enough programs. Unfortunately function keys are not used. Obviously not intended for the multi-national corporation but ample for most small businesses, *Easyledgers* should establish itself as sound investment for the budding entrepreneur.

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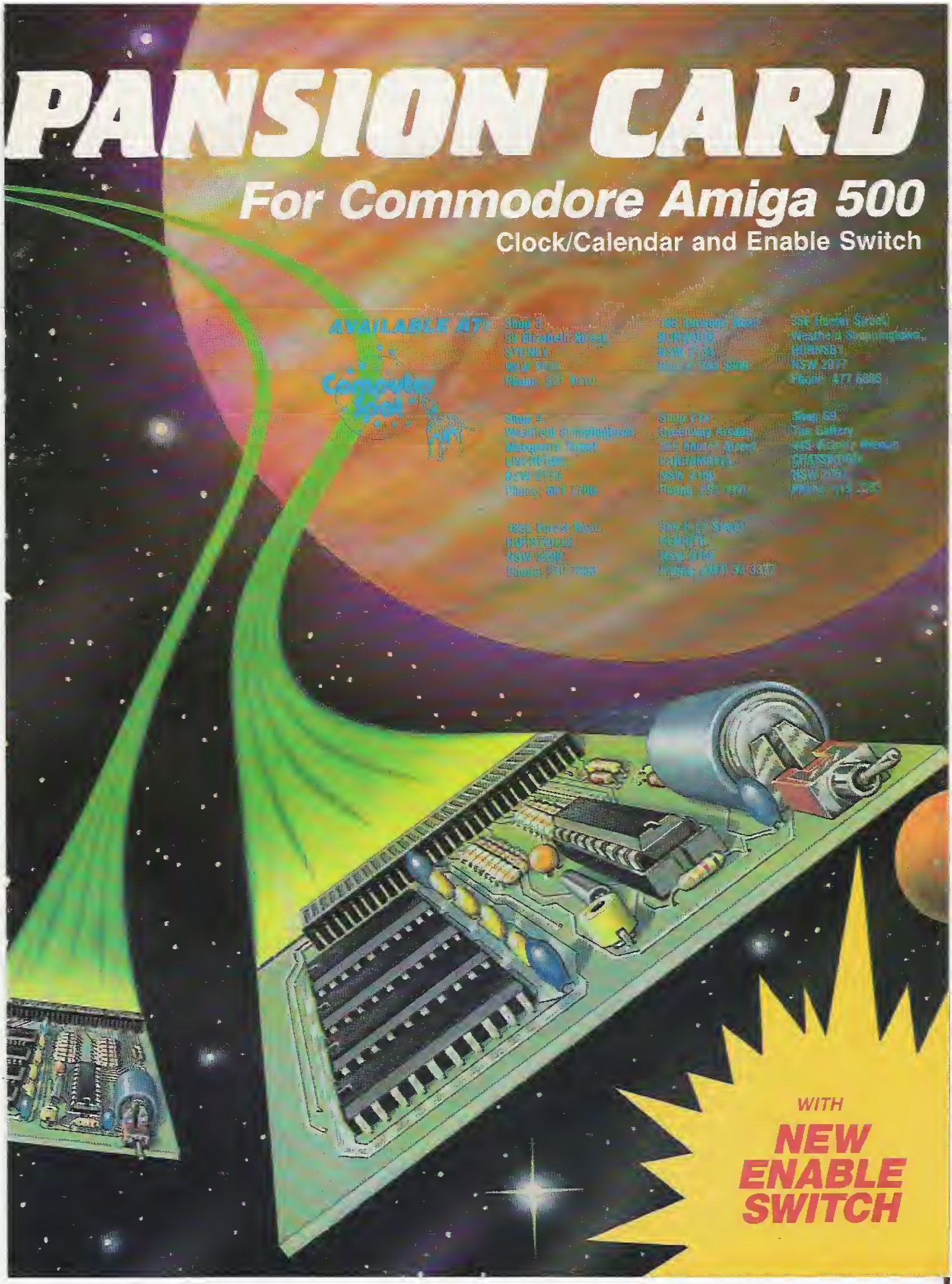
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Lighting three dimensional objects

Amiga digitizing

by Dennis Nicholson

DIGITIZING IMAGES on the Amiga has almost become a full-time occupation for some users, but it is primarily a two-dimensional affair. Such things as photographs, drawings and plans are put under the lens daily. The most common piece of hardware used is *Digi-View* by NewTek.

Why not add another dimension? It can be quite a simple matter to image 3D objects. What sort of objects I will leave up to you, but there is one very important item to consider and that is the lighting.

The final quality of the grabbed image will totally depend upon the lighting set-up you use. If digitizing relatively small items I recommend that you make a cyclorama, more commonly called a "cyc" or an infinity background. A cyc is basically a curved surface attached to a suitably shaped frame. The surface can be coloured card, cloth or whatever you prefer.

When lighting your subject the main source of light is called the KEY LIGHT. It can be a photoflood lamp on a stand or even sunlight from a window. The further your subject is away from the background of the cyc the better, so that the key light will not cast heavy shadows onto the background. Supplementary lighting should also be used to cut down the shadow created by the key light behind the 3D object.

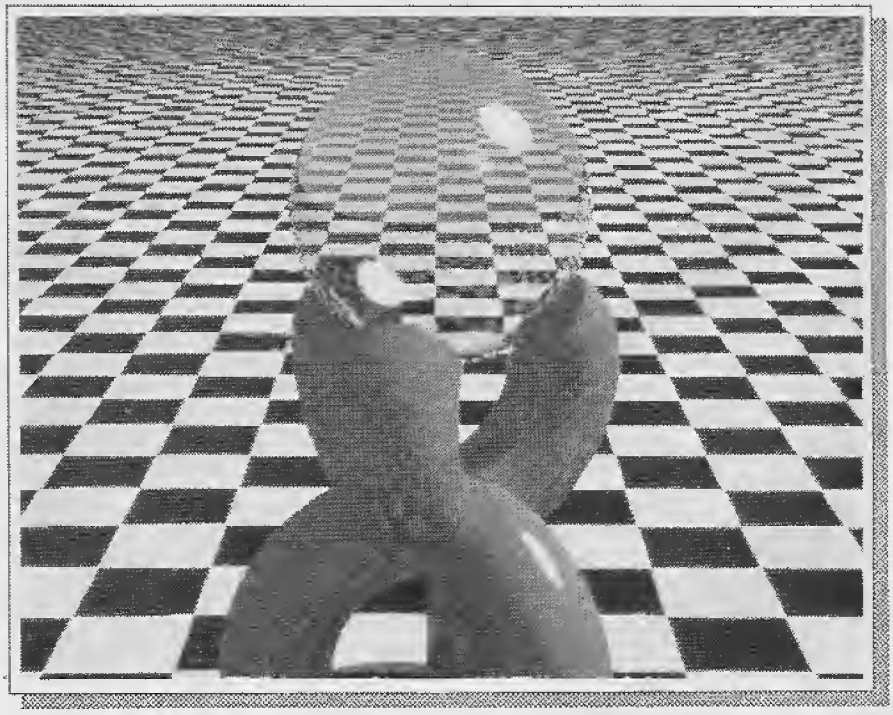
It is also advisable to remember that if your background cyc is a bright colour, for example white, then your video camera's automatic gain control may underexpose to compensate for the brightness. This is a problem if the subject you are digitizing is a dark colour. What you will end up with is a white background with an almost totally black subject. The reverse will happen if you have a dark background and a brighter subject. Video cameras are available where it is possible to over-ride the automatic gain controls, but if your camera is one of the majority that does not have this facility then there are ways to get around the problem.

Possibly the best colour to have the cyc background is a mid-range flat grey. This is a good average for the camera to read. If you must use a coloured background then remember that bright or dark colours are going to do what a white or black background did and confuse the camera's gain control. Another way to greatly soften shadows is to BOUNCE your light source. That is, do not aim the key light directly at your subject, but bounce it off something. One of the best materials to use is polystyrene sheeting (the same stuff your Amiga was packaged in). Because it is rigid it is easy to lean against something or attach to a spare light stand, and what's better, it is white. One word of warning if using polystyrene, do not place lights too close to it as it will melt and give off very poisonous fumes, so take care! If polystyrene sheeting is not available, you can always paint a small piece of ply board white and use it to bounce the light.

Adding a RIM-LIGHT to three dimensional objects will also greatly enhance their depth. As the name suggests a rim-light illuminates the back of the subject and highlights the edges. The rim-light should be positioned at the rear of the cyc pointing towards the back of the subject (towards the camera). Make sure it is placed high enough to be out of the camera's view. To avoid getting flare from the rim-light in the camera's lens it is advisable to place a FLAG in front of the light. A flag can be basically anything that stops the light hitting the lens of the camera, but still allows the light to rim the subject. I use a rectangular piece of aluminum that can be attached to a light stand with an adjustable arm to allow for fine-tuning.

Over-lighting a subject will only result in a flat image, something that is to be avoided when trying to obtain a three-dimensional effect. Lighting is an art, so it pays to spend time digitizing several versions of the same subject using different lighting setups until you are happy with the result. So be patient and experiment, you will find it well worth your while. ❑

Dennis Nicholson is Editor of Graphics-palette, a desktop video disk-zine for the Amiga.



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Super Snapshot v4

by Eric Holroyd

LONGTIME READERS will recall that we first reviewed this cartridge system in the February 88 issue, following on with a write-up on the update to v3.0 in August 88. It is made by LMS Technologies in Canada.

For the uninitiated 64 user, let's briefly explain that Super Snapshot is a unit that fits into the cartridge port adding a great number of enhancements to your computer.

All its functions are programmed onto a ROM chip which can be changed over easily when an update version becomes available. Simply open the cartridge case, unplug the chip and send it in with the update fee (usually around US$20) and you'll get the new chip plus paperwork covering the latest features in the mail very quickly.

What it does

● There's a built-in DOS Wedge of simplified disk commands which lets you do most things with a couple of keystrokes (instead of having to type load "$",8' you'd just press `$' to get the directory of a disk. Also, this command gets you a harmless directory which doesn't over-ride the program in memory.

Then there's the TURBO-DOS system which speeds up normal disk operations by about five times (the normal 1541 disk drive is notoriously slow) and which may be disabled with a simple command if there's any conflict with a commercial program's built-in fast loader etc.

If the TURBO DOS system still isn't fast enough for you, you may format special disks to use LMS's TURBO*25 system which then loads your programs at blistering speed. The cartridge needs to be plugged in to use TURBO*25 disks and as a guide, one of my programs converted to this format was 72 blocks and loaded in four seconds.

Super Snapshot programs the 64's Function keys to perform a number of useful jobs such as having F1 load the first (Basic) program on a disk, F6 save a file to disk, F8 jump to the Machine Language monitor etc etc. All eight F-keys are preset and you may personalize the settings to suit yourself if you wish.

On top of all this there's a very good copying system which lets you make backup copies of your expensive software. Copying is always a bone of contention with software publishers and suppliers and has been well covered in other articles so I won't go into it again just now. Suffice it to say that Super Snapshot is a very good memory capture device which just sits there undetected whilst you load a program into the 64's memory then press a button to capture it. You may then save it to disk as an unprotected version.

The copy system also includes a good file copying setup which I find very useful for shifting files from one disk to another and generally tidying up disks. All Commodore drives are supported, even the one that Commodore Australia won't let us have here - the fabled 1581 - and you may use two drives for copying full disks or single files in almost any combination.

Graphics fans will love the Screen Copy option which lets you capture almost any picture from the 64's screen and save it to disk in the popular *Koala* or *Doodle* formats. Captured pictures may then be manipulated in a variety of ways with any number of graphics packages. There's also an option to print the captured picture in any one of three sizes, with a further option to print it in reverse. Incidentally, if you're a slide-show fan the pictures you capture may be made into an automatic show with the *Slideshow Creator* available separately.

The Machine Language Monitor mentioned above is known as the Code Inspector and is described as "a hacker's dream come true". Unfortunately, as I'm not a ML programmer I can't get the benefit from this feature. However, on talking to the guys that do know the subject I'm assured that the Code Inspector has all the features they need, and then some. You enter the Monitor with a touch of the Snapshot button, inspect the program's code, perhaps make a few changes (always on a backup copy don't forget!) and resume normal operation right where you left off. None of this will corrupt memory either!

All functions of the Super Snapshot system let you resume normal program operation after doing whatever it was that you pressed the button for. I found this to be a great feature and one that some other cartridge systems don't have.

As I use a C-128 I opted for the switched cartridge. This means that I can leave the cartridge plugged in all the time (as it should be to get full benefit from it's features) and flick the switch to disable it completely if I want to use the computer in 128 mode.

That's the story so far, now for the v4 updates.

Version 4 updates

● Frustrated gamesters who can't get past the earlier levels can now get extended lives as and when required by pressing the Snapshot button to pause everything and then resuming game play and

Continued on page 42

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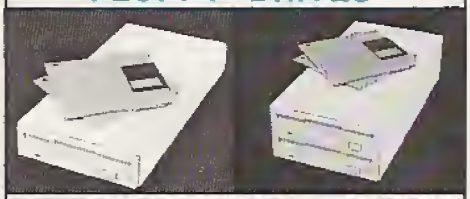

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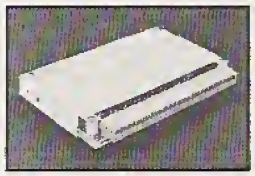

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program operation. If you then lose your last man you may reset the 64 with the Commodore key and the Snapshot button to get back to where you originally paused the game. Simple!

If you really want to cheat in a game you can disable sprite collision so that your man will never die and you'll be able to go right through the levels and learn how to do them all. Once you can do this you can switch sprite collision back on and play the game properly.

There are now three extra' Function keys which use the Commodore key in conjunction. They are:-

F9 (C= + F1) = Put cursor at screen bottom left
F10 (C= + F3) = Change border color
F11 (C= + F5) = Change background color

As well as the preset Function keys there are now a number of keys assigned as Specialty keys. These include:-

CTRL/Snapshot button - Go to Code Inspector
Commodore/Snapshot button - Warm reset
Hold F1 during power up - Straight to Basic with all features enabled but no autoboot
Hold F7 during power up - As F1 but with autoboot
Hold F8 during power up - To Basic with all S/S disabled

The autoboot just mentioned is a feature long enjoyed by C-128 users and which can now be used by C-64/Super Snapshot owners.

The BOOT command is also supported. The systems disk which is supplied with the unit has the BOOTSECTOR MAKER program which lets you install the special sector. From then on, to load and run a disk simply type BOOT' or just press F7 at power up (with the cartridge plugged in of course). If you're a BBS Sysop you'll like this one: At power up, an internal counter counts down thirty seconds. If there's no keypress during that time the system automatically exits to Basic and autoboots the disk in the drive. So, if you put your comms disk in and switch on, everything else happens automatically.

Regarding copying of protected programs: Many programs do a check to see if there's a cartridge plugged in and won't continue to load if one is detected. Pressing F8 at power up ensures that Super Snapshot is invisible and so allows such a load to continue. The excellent manual takes you through all the steps necessary to do all of this and discusses the other aspects of backing up protected software including the use of the parameters (sort of copy protection fingerprints) which are on the disk supplied. These would normally be used in conjunction with the full disk copier which is completely different from the Snapshotting process and which is a separate copy system which is loaded into the cartridge from the systems disk.

There's a fast copier and a nibbler, this latter one being the Shotgun II program which even backs up those disks using the Rapidlok protection. Again, all Commodore drives are supported and you may set the Source and Destination drive numbers as well as start and end tracks. Double sided 1571 disks may be copied too, right up to 80 tracks. For those really technical people there's a Track and Sector editor and a Drive Monitor too.

Version 4 also includes Basic Plus which is an extension of the normal Commodore Basic programming language. This includes such commands as: APPEND, AUTONUMBER, AUTODATA, DELETE, DUMP, KILL, MENU, MERGE, OLD, PRINTON, PRINTOFF, RENUM, TRACEON, TRACEOFF. The MERGE feature is a true merge and really does merge another program with the one already in memory. OLD will restore a program after a warm reset or a NEW command and is very handy.

LMS Technologies operate a 24 hour BBS in Canada and apparently have lots of happy Snapshot users who support their favourite cartridge by downloading programs they've written which use it. I got a number of these on a second disk together with some of LMS's own programs and among them were:-

CUSTOM - a utility to preset the Function keys, printer driver and monitor colors, README - a description of the IO command, MODLINK - an enhanced linker for the *Slideshow Creator*, MDK - which lets you make a self-running program from a *Doodle* or *Koala* picture, FILEMERGE - to combine two files (1541 only) into one, and SNAP.CLEAN - to clean up hi-res screens distorted via the snapshotting process. (This can happen if a raster was running when you pressed the button for example). There's quite a bit more `fine-tuning' gone into version 4 and I found it a joy to work with. It's permanently installed on the C-128 and I'm enjoying using all the new features a lot. One which will appeal to gamesters in particular is the new printer driver for Star NX1000 Rainbow colour printers. With this I was able to capture a screen from a running game and print it out in colour.

Wouldn't it be great to do that with your all-time High Score. I've done a color printout (using a printer kindly loaned by Computermate Products for the purpose - it's RRP is $699) which shows the possibilities of all this. I'd reviewed the normal Star NX1000 printer in a previous issue and already knew it a good machine but had never got around to looking at a colour unit. I was pleasantly surprised. The enhancements offered by Version 4 make this an extremely useful system for all C-64 users. It's certainly my own favourite and I recommend it. ❑

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Startup-Sequences on the Commodore 128

by David Williams

YES, THAT DOES say startup-sequences on the Commodore 128. This is a feature normally associated with the Amiga - this magazine has even published some articles about it - but it is also available on the 128, just not all that well-known. This is probably due to the shocking lack of software support for the 128, most owners using 64 mode more often.

Pull out your Commodore 128 system guide and turn to page 17-7. There you will find the command "BOOT". This command is used to load and execute binary files from their start address. There is also an entry of "BOOT" with no parameters.

"This is a special case and requires setting up a specific sector on the disk," it says, and gives CP/M Plus as an example. Those of you who actually do use CP/M (probably not those of you with 1541 drives and 40 column monitors) will know that to start, all that needs to be done is to insert the disk, and turn the computer on. CP/M then starts automatically.

You may also know that it is possible to create a Profile.Sub file. When CP/M boots, it will check for this file on the disk. If it exists, Submit.Com will be run, and all the commands from the submit file will be used for console input.

This can also be done for Commodore 128 programs, the only difference is that the Operating System is already in memory. This shall be explained later, but first ... why? What is this magic that allows CP/M to load itself without being instructed to?

Initialisation

● Quite simply, every time that you turn your computer on, or press the reset switch, it undergoes an initialisation process. This does various things such as copy some important data from ROM into zero-page vectors, and check for cartridges, and also track 1, sector 0 from the current disk in the drive is read into memory. This always happens, so if you have no disk in your drive, and it is on, and you then turn the computer on, the disk drive will rattle for a short moment. This can't be very good for the alignment heads. This can't be avoided for owners of 128D's. However, we are also told never to turn a disk drive on or off with a disk in it. This is a silly annoyance in an otherwise excellent computer.

The computer then goes on to examine the sector (this particular track/sector combination is known as the boot sector) that it has just stuck in memory. If the first three bytes contain the letters CBM, then "Booting ..." is printed on the screen, and some more analysing is done. If they do not, however, then you are dropped off in BASIC with a ready prompt.

Following the CBM is some more information, such as an optional message to be printed after the "Booting", and a filename. Now, if you were to write a special program that customised the computer, and then you put its filename into the boot sector, why, you'd have an auto-executing file, just like CP/M Plus.

Following this article are two program listings.

One is an Autoboot Manager, and the other is an example of the start-up sequence (the program that customises the computer) that I use.

Customiser

● This program starts by checking to see what mode the user is in, through the RGR (Return GRaphic) function. A value of five means we are in graphic mode five, which is 80 columns. So, a flag is set, and fast mode is turned on.

The second line then loads either of two binary files depending on whether the content of location 212 is 76 or not. Why is this?

Well, the two files were both useful, but I don't need them both at the same time (you can see that they use the same memory, anyway) and so I wanted to be able to choose one or the other. I wanted this to be easily done, not by having a menu come up on the screen, for instance. The purpose of the boot sector is to allow the computer to be set up in some way efficiently and quickly. So I had the idea to expand on a feature already present. Type in the BASIC line

```
DO :PRINT PEEK(212):LOOP
```

and suddenly the screen fills with numbers. Hold down some keys, and watch the numbers change to specific values on certain keys. Then hold down ENTER on the numeric keypad. The number 76 comes up. Figured it out? If you turn the 128 on with the RUN/STOP key held down you start in the machine language monitor (which by the way, overrides the autoboot checking).

If you turn on the 128 with the COMMODORE LOGO key held down, you start in 64 mode (which does not check for the autoboot), and in my system, if you turn the 128 on with the ENTER key held down, a Ramdisk is loaded, instead of a Preferences file.

The next set of lines defines all the function keys. See the F4 definition? Call up a disk directory, move the cursor to a file you wish to load, and then press F4. F7 turns off auto-insert mode, clears the screen, and lists the program in memory. You will see that some of my definitions are the default ones. I have them there so that in case I do decide to change them, I only have to load the program, cursor up, change the definition, and then resave it. Lines 11 and 12 then print a message in lower case (CONTROL+n switches to lower case), depending on the variable A, which was set in line 1 as a flag for if the computer is in 40 or 80 column mode. The last line is a NEW, erasing the program.

So the computer has now been set up the way I want it (I could have also changed the screen colours), and we are in BASIC at the ready prompt. Before that however, is a poke command.

How many of you have typed out those programs from American maga -

Customiser :

```
1 if rgr(.)=5then a=1:fast
2 ifpeek(212)=76then r=1:bload "ram-
disk":sys 4864:else bload "preferenc-
es":sys 4864
3 key 1,"data
4 key 2,"dload"+chr$(34)
5 key 3,"directory"+chr$(13)
6 key 4,"dload[3tab],u(peek(186))"+chr$
(27)+"@
7 key 5,"dsave"+chr$(34)
8 key 6,"run"+chr$(13)
9 key 7,chr$(27)+"c"+"[clr]list"+chr$(13)
10 key 8,"scratch"+chr$(34)
11 if a=1then print "[clr][green][con-
trol+n][control+b]        Customised Com-
modore 128 system. 122365 BASIC bytes
free.      [control+u]
12 if a=.then print "[con-
trol+n]Commodore 128"chr$(27)"e13
poke 56334,peek(56334)or 128:new
```

Autoboot Manager :

```
10 clr :print "[c]reate or [r]emove a boot
sector?":getkey a$:on instr("rc",a$)+1goto
10,20,50
20 open 15,8,15,"ij":if ds>.then 40:else
open 8,8,8,"#":print# 15,"u1:8 0 1
0":print#15,"b-p";8;0:get#8,q$:
u=asc(q$):ifu<>67then print "not auto-
boot disk":goto 40
30 print# 15,"b-p";8;0:print# 8,chr$
(0);:print# 15,"u2:8 0 1 0":dclose :if
ds>.then 40:else collect
40 dclose :close 15:print ds$:clr :getkey
a$:run
50 input "file to boot";f$:input "message
to print : booting xxxxxxxxxxxxxxx
...";m$:m$=left$(m$,16):open 1,8,15:open
8,8,8,"#0":z$=chr$(0):print# 1,"b-p"8;0
60 print# 8,"cbm"z$z$z$z$m$z$z$;:print#
1,"m-r"chr$(153);:get# 1,a$:print# 8,chr$
(162)chr$(asc(a$)+6);:
print# 8,chr$(160)chr$(11);:print#
8,"l"chr$(165)chr$(175);
70 print# 8,":run"chr$(34)f$chr$
(34)z$;:print#
1,"u2:"8;0;1;0:print# 1,"b-f:";0;1;0:print#
1,"b-a:";0;1;0:close 1:goto 40
```

– zines that are supposed to keep a constantly updating clock on the screen to find that they constantly lose time? This is due to the fact that they use the computer's time-of-day clock (TOD) function. This is more reliable than ti$ which can be corrupted from disk access, and other things. The TOD however is driven by the power line, which is where the problem comes in. Americans use a 60 Hz (cycles per second) power supply, whereas Europeans and Australians use 50 Hz. Bit 7 of location 56334 determines the rate at which the TOD is incremented.

If it is clear (%0) then the TOD is incremented 1/10th of a second every 6 cycles (6 times 10 is 60). If this bit is set (%1) then the TOD is incremented 1/10th of a second every 5 cycles. During the initialisation routine this bit is cleared. So my program sets it by ORing the contents of 56334 with 128 (%10000000).

Note that 56334 is part of the I/O block, and so you should ensure this is visible before the poke is issued. Of course, the initialisation routine also puts the computer into bank 15, and so my program does not worry about the bank command.

Of course, autoboot sectors can also be used for other things than customising. Loading a game, or spreadsheet, or even putting the computer into 64 mode. There are many uses.

Autoboot Manager

● The next listing, the Autoboot Manager, contains some routines for creating and removing boot sectors. It is easily used. There is also a program on Disk Magazine 7 that allows a C64 disk to be booted from 128 mode.

When creating a boot sector it is a good idea to only use blank disks, and then save programs. If you put a boot sector on a disk that is nearly full, another program may be already using that sector, and become corrupted. ❑

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SIGNATURE: ..... DATE: .....

Setting up your Hard Disk

by Tim Strachan

NUMEROUS PEOPLE have asked us to do something about this, having found themselves in the enviable position of having a hard disk, but unenviably unable to use it properly. As usual, there isn't much in the way of clear explanations in the places you'd expect to find them, such as DOS manuals, or manuals that arrive with the computer, so we'll try to fill the gap a little. If you have any useful information about hard disks, please let us know and we'll pass it on.

Background

● A hard disk is in some ways like a very big floppy disk - it's a storage unit (for keeping data and programs) rather than a memory unit (like expanded ram), and its size is measured in Megabytes. An Amiga floppy will hold .88 of a Megabyte, while hard disks are made in various sizes, from 10 Meg up to 800 or so. A 20-Meg drive will be sufficient for normal home use, but many are opting for 40 Meg or more on the Amiga, with its accent on large graphic and sound files. And there's no doubt about it - whatever size you get, it'll be insufficient eventually! Since there's not much of a differential between a 20 and 40 meg drive, we'd recommend going for the 40.

Setting up

● When you get your hard disk, you should get a manual (terse to the point of inscrutability) covering simple installation - connecting it up, turning it on and booting up - you should also get a "Boot Disk" of some kind, set up for your particular drive. You'll probably find this straightforward, and when you boot it up and open the main window of the hard disk, it should have all the usual Workbench icons like a standard Workbench disk, and probably a number of other drawers with numerous Public Domain utilities, etc.

This is the clean slate you now have to write on, as you'll want to install all your own programs and generally customise the disk according to your needs - set up the disk with FastFileSystem (the faster, more efficient 1.3 file system setup) if it isn't already, Partition it into more than one "logical" drive (ie, turn one physical drive into two or more separate drives), and so on. And it's at this point that people have problems.

Installing your favourite programs

● Forgetting the trickier aspects of setting up FFS and partitions for the moment, this is the most important thing to know. The basic problem with installing programs such as your Word Processor is that when you run the program by double-clicking on its icon, it will probably look for a "volume" or "device" named, say, "WP:" .

Now if you check out the name of the original floppy disk that the program came on, it's probably called, in this case, "WP" (no colon this time). So when you're running the program off the floppy disk, there is no problem since if the disk is called WP, then the system sees it as the "volume" or "device" WP: (with colon) and is satisfied.

But when you've simply copied the program (by dragging its icon, say) to your hard disk, and then attempted to open it, the system is finding instructions in the program to look for the volume WP: - needless to say, there isn't any such volume now, because the program is sitting in the volume DH0: or whatever your hard disk is called. As a result, an error is reported by the system, and nothing happens. What to do?

You've got to tell the system to look for the program where it is now. Say the program is called "WP Prog" and you've put it into a drawer called "WORD PROC" on the main window of your hard disk. You use the ASSIGN command, either each time you run it (which is a waste of time) or in your startup-sequence. Enter, in this case:

```
ASSIGN WP: DH0:WORD PROC
```

and now the computer will automatically recognise that drawer on the hard disk whenever it needs the device "WP:".

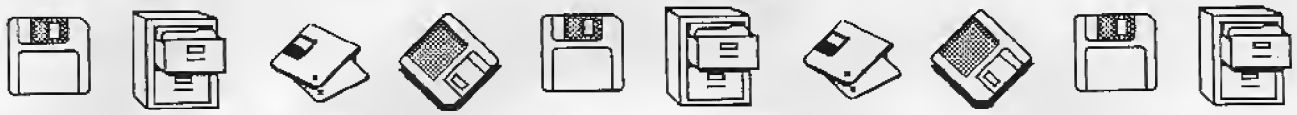
The Desktop Publishing package *Professional Page* comes on two disks - the program disk, called "PPAGE" holds the program itself, also called PPAGE. The second disk, called "PPAGEUTIL", holds all the required screen fonts in a directory called FONTS (as usual), along with a couple of utilities, and various directories required for storing Drawings, Data, Pictures, Colours and so forth. Now when you boot up this program on floppy everything is set up for you, as long as you put PPAGEUTIL in DF1:, because in the startup-sequence there is an ASSIGNment saying:

```
ASSIGN FONTS: DF1:FONTS
```

which overrides the default situation of the system looking at the fonts directory of the boot disk whenever fonts are required. Now you want to rearrange all this so that everything comes off the hard disk with no pain. It happens that a batch file has been written, which when executed, does all the hard disk installation for you, and if you're lucky, your other favourite programs will contain a similar installation procedure. But don't bet on it. We'll go through the steps required to install *Professional Page* on the hard disk.

STEP 1: Make a drawer on your hard disk by DUPLICATEing your empty drawer, and RENAME it as PPAGE. Likewise, inside the PPage drawer, make a bunch of other drawers called COLORS, DATA, DRAWINGS, PICTURES, MISC, and TEMPLATES, all of which are required by the program if you're going to use it to its full extent. And while you're at it, you could make a few drawers for your own purposes, such as ASCII DOCS, POSTSCRIPT FILES, and whatever else you'll need.

STEP 2: Copy the program PPAGE from the floppy to the PPAGE drawer on



the hard disk, either with a directory utility (recommended) or in the CLI:

copy ppage:ppage#? to dh0:ppage

[Note the use of the "wildcards" - "PPage#?" means any file which starts with the letters "PPage", and so this command will copy both the program PPage and its icon "PPage.info" (every icon takes the form of the name of the file it represents with ".info" tacked on).]

STEP 3: Copy the entire contents of the FONTS directory on the PPAGEUTIL disk to the Fonts directory of your hard disk. From the CLI:

COPY PPAGEUTIL:FONTS TO DH0:FONTS ALL

[Note the ALL on the end of this command, which makes the COPY command copy any sub-directories which exist in the "source" directory, and since each font, like Times, is actually a sub-directory of the Fonts directory, containing various fonts named by SIZE (10, 24, etc), this is necessary.]

Note also that you could have simplified STEPS 1 & 3 by simply copying the entire contents of the PPAGEUTIL disk to the PPAGE drawer, as follows:

CD PPAGEUTIL: COPY TO DH0:PPAGE ALL

But you would have ended up with some unnecessary files on the hard disk - and the way described gives a more nuts and bolts approach.

Editing your Startup-Sequence

● Unless you have an auto-boot A2000, you've got a Boot Disk which goes through the process of transferring control of the computer to the hard disk, ie, it makes the hard disk the system disk, by ASSIGNing the various "logical devices" (C:, S:, LIBS:, L:, FONTS:, T: and so forth) to the corresponding Directories on the hard disk.

We'll discuss a couple of methods to speed up this boot-up procedure below, but the next thing to do is edit the start-up-sequence with a text editor. I'd recommend having something like TxED, or PTE or DME (a PD editor), but let's assume you're using ED, which sits in the C directory of all Workbench disks, and thus can be instantly called from the CLI. Enter:

ED SYS:S/STARTUP-SEQUENCE
[or ED DF0:S/STARTUP-SEQUENCE

if you do all your ASSIGNs from the startup-sequence of the Boot disk and you'll be presented with ED's screen. Go to the end of the last ASSIGN command you see, hit RETURN, and you'll have a blank line. Type in (for our example using PPage - you would adjust this to whichever program you were installing):

ASSIGN PPAGE: DH0:PPAGE
ASSIGN PPAGEUTIL: DH0:PPAGE

The first line tells the system that whenever the disks "PPage:" or "PPageUtil:" are required (for bringing up requestors, or loading templates or graphics or whatever), look in the PPAGE drawer on the hard disk. These two ASSIGNments now complete the installation of *Professional Page* on your hard disk. [To save your editing from ED, press ESC and then X.]

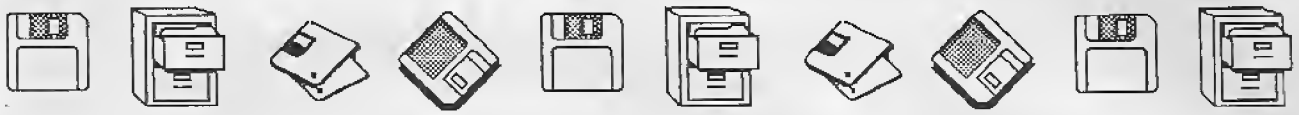
If you follow the ideas here, and adjust them to the (probably less complicated) requirements of the program you want to instal, then all should be well. And any well-written program should have a well-written manual with a section called "Hard Disk Installation" with details of what should go where and what ASSIGNs to make in your startup-sequence.

Speeding it all up

● Since floppy disks are notoriously slow, and hard disks are fast, it's in your interest to transfer control to your hard disk as soon as you can, and continue the rest of the startup from there. The start-up-sequence of my boot disk looks like this:

mount dh0:
cd dh0:c
dh0:c/execute dh0:s/assign table
endcli

This is as quick as you can get - the hard disk is "mounted", according to the specifications in the Mountlist in the DEVS directory (set up for you already,



but you can tinker with it to make more partitions); then the current directory is changed to DH0:C (which is where the rest of the commands will come from); the bulk of the startup-sequence is then continued by executing another batch file called "assign table", which not only assigns all the necessary logical devices, etc. but also runs some background programs like Wicon, FaceII, a clock and so on. Finally that CLI is killed off with ENDCLI.

Back it up!

● This is serious advice! No matter how careful you are, how delicate in your hard disk usage, how much you pray to your God, you're going to have your hard disk crash on you some time. So get and use a hard disk backup program - HD-UTIL by the Australian DIGI-SOFT; or QUARTERBACK by EAST COAST SOFTWARE (either of which will set you back $80 or $90); or you can even trust your luck to one of the public domain programs - MRBACK-UP is one that springs to mind.

If you're not using the 1.3 FastFileSystem on your hard disk, you're missing out on greater speed and more disk space (about 5% more). It's not too hard to do, but of course you need the 1.3 ENHANCER PACK (should be about $30 at your dealer), and you need to be able to back up your hard disk first (see above). Having backed up, you need to re-format the drive with the 1.3 Format command, as follows:

FORMAT DRIVE DH0: NAME DH0 FFS

and the drive will chug along formatting for a while. You then have to edit your DEVS:MOUNTLIST entry for DH0: using a text editor. My current mountlist for a 40-meg drive looks like this:

```
#
DH0: Device = hd.device
Unit = 1
Flags = 0
Surfaces = 6
BlocksPerTrack = 17
Reserved = 2
Interleave = 0
LowCyl = 0
HighCyl = 810
Buffers = 17
BufMemType = 0
GlobVec = -1
FileSystem = L:FastFileSystem
Mount = 1
DosType = 0x444F5301
#
```

Note the HASH-marks (#) between Mountlist entries; the DosType line (which appears to be unnecessary in practice); the GlobVec line (said to indicate "no global vector"...); and the FileSystem line, definitely required.

Then REBOOT with your new setup and do a RESTORE of your backed-up files to the hard disk and you've got FastFileSystem installed.

Arranging your icons Watch Out

● Warren Marshall, purveyor of hard disks to the Amiga public, alerted us to a bizarre bug in Intuition (which handles the Workbench) - in both the 1.2 and 1.3 versions of the Operating System, a "black hole" can invisibly appear. That is, if you have many icons on the main window of your hard disk, and if they tend to be concentrated more on the right hand side, and if the window is wider rather than taller ... then it may appear, with the effect that if you move an icon, it may go poof! Lost!

But in fact it's disappeared into another drawer somewhere or other - you just have to open them up till you find it. Could be a problem when rebooting however, if the system doesn't find a required directory where it's supposed to be. This will also happen on Sidecar partitions. The development manager at Commodore's Westchester operation advises: have a longer rather than wide window, don't have too many icons on the right hand side, and use subdirectories whenever possible. I've never had a problem, personally (with this phenomenon, ie!), but I know some people have.

We've heard of logical devices, and we humans try to approach that state at times, and it helps with organising your hard disk. It's a good idea to use subdirectories extensively for breaking up your data, and so that when you see the name of the directory you know the sort of thing that's in there. So a Word-processing directory could contain directories marked "Letters", "Business", "Personal", etc.

Some people love collecting utilities of all kinds and if you keep putting them in the C directory, you end up with a huge list of mixed stuff there with bizarre names and no documents. An idea is to make directories labeled "C1", "C2" etc and put say hacking utilities in one (with docs), icon utilities in another and so on. And edit your startup-sequence to add a PATH to all of them, as in:

PATH DH0:C1 ADD

so that when you just type the name in the CLI, you'll be able to get the program you want. Likewise use the PATH command to get instant access to any other directory on the hard disk which may have commands you need.

I hate to state the obvious, but if you need to type a whole pathname at any time, it's a lot easier if the names are short rather than long.

Other useful techniques include using "filename extensions", eg, Mygraphic.pic (a picture) myprog.c (the source file for a C program) myletter.wp (a Wordperfect file) Sidecar II (second part of article on Sidecar) filename.ascii (straight ASCII, ie text, file) and so on. Helps a lot when you come across them later. ❑

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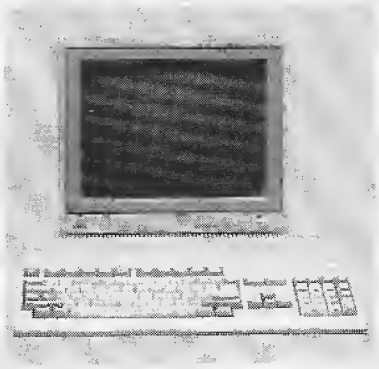

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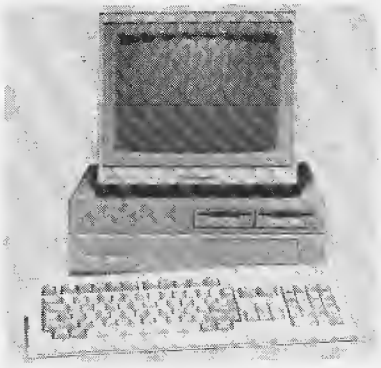

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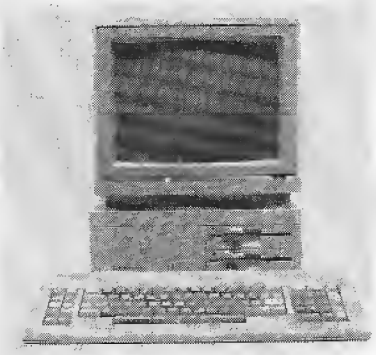

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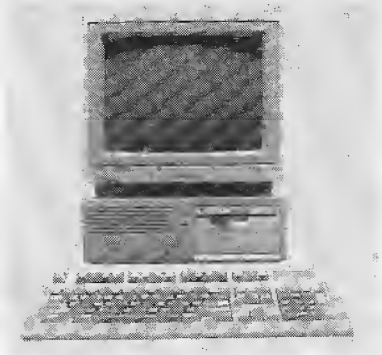

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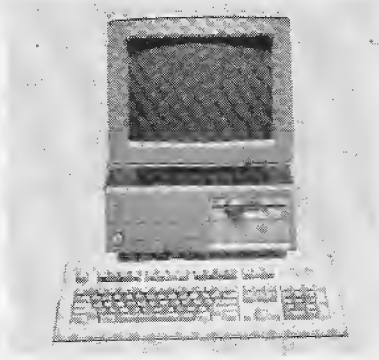

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The Mega Entertainment Section

Edited by Phil Campbell

That's Entertainment

A round-up of this month's entertainment news and views.

Who's Who?

● The last few months have seen some remarkable changes in the Australian entertainment software industry.

YPA Holdings, exclusive distributors of games like *Defender of the Crown* and *Lords of the Rising Sun* have become the Australian branch of Mindscape, a well known American software house.

Meanwhile, Ozisoft and Questor have joined forces. In a complicated deal, Ozisoft has bought Questor from Imagineering, and Imagineering has made a "strategic share investment" in Ozisoft. Follow that? Me neither. Anyhow, the names remain the same, and Ozisoft's Kevin Bermeister promises that the two groups "will continue to operate as two distinctly separate and totally competitive teams, with no plans for change in their marketing or management structure." Whichever way things work out, the fact remains that this is now by far the biggest force in the entertainment market.

New games

● Psygnosis, long famous for their beautifully crafted (but sometimes boring) games have released a swag of new Amiga titles.

● *Ballistix* is "an incredibly fast, painfully addictive, intensely competitive and excruciatingly tough" ball game played over 130 different "mind boggling pitches." Sounds like fun.

● *Captain Fizz Meets the Blaster-trons* is a "gripping mixture of frantic action and deep strategy" with split screen simultaneous two player action, 20 levels, and a pounding soundtrack. Co-operation is required if you want to get far - you'll need to watch out for your partner as well as yourself.

● *Blood Money* and *Menace*, fast and furious arcade style games, also sound as it they'll be worth more than a quick look. All Psygnosis products are distributed in Australia by Ozisoft - watch out for full reviews soon.

● Pactronics have just sent review copies of *Cybernoid II, Raider, Ringside, Skweek* and *S.T.A.G.* I haven't even had time to open the boxes, so they'll have to wait until next month too. *Ringside*, a boxing simulation, is said to be a real beauty. We'll let you know.

● Megadisc Digital Publishing have released a 10 disk set of the best Amiga public domain games. This bunch includes some real gems - as well as a fair proportion of junk. Still, at just $55.00 for the set you can't go wrong, and the price includes a plastic disk box. Tim Strachan (02-959 3692) for details. ❑

Letters to the editor

Defender

● I have been a reader of your magazine ever since I bought an Amiga 500. It has been very helpful to me. I enjoy reading the helpful hints and tips readers of your magazine send in and slowly I have amassed a collection of hints and pokes for many games.

In your July issue, Paul Millward sent in a cheat that said if you hold down "K" in the game *Defender Of The Crown* you get 1024 men and 1024 knights and improved sword play. This is not true. In fact, you get 2048 knights, and no men. Also included with my letter is my collection of cheats and tips to help some of your readers. I hope you can also send me the *Bard's Tale* Hint Sheets.

Andrew Tremewheere
Mayfield West, NSW

Thanks for your letter, Andrew. We appreciate your hints and tips. Please note that Adventure Hint Sheets should be ordered from the address printed in Adventurer's Realm. But just this once, I'll see what I can do!

Youngest player?

● We are so proud! Our daughter Jessica is aged 2 years and 8 months. Through just a few patient moments of sitting sessions at our computer (an Amiga 2000 operated by her father) and letting Jessica become involved in a children's game called *Shapes*, Jessica has learned to operate the computer all by herself and play *Shapes*. Wow! And its only the beginning.

Mrs J. Dobrowski
Seaton, S.A.

Congratulations. Jessica is obviously well on the way to a degree in Computer Science. Seriously, though, games like this - and I suspect Mrs Dobrowski is referring to FIRST SHAPES - are a great way to introduce kids to computers. Unfortunately, my two year old caused a "READ/WRITE ERROR CODE 395 - PEANUT BUTTER FINGERS" on our copy of FIRST SHAPES. If your talented kid can match young Jessica, drop us a line.

Help Needed

● I am writing to you hoping you can help me. I have searched high and low for The Quill or the Graphic Adventure Creator, and cannot find either. Can you give me the address of the Australian distributor? Otherwise, someone may have a copy they wish to sell? (C-64 disk, preferably.)

Adrian Giannini
29 Kelleher St
Churchill, VIC, 3842

It's quite a while since I have heard of either of these products, but somebody must have an old copy lying around. If you've given up trying to write adventure games and would like to help Adrian, please write to him at the address above.

Letters for this section of the magazine should be addressed to Phil Campbell, PO Box 23 Maclean NSW, 2463. ❑

Amiga Hints and tips

● Here are some useful Amiga tips from Owen Webster. No wonder he's got so many entries in the Hall of Fame! (You wouldn't dream of it, would you Owen?)

Nebulus

● Type "HELLOIAMJMP" on the title screen for unlimited Pogos. This will also allow you to move on to unfinished towers by pressing a function key. Do the same with the second group by accepting the second mission before typing in the password.

Wizball

● Pause the game with the space bar and type "RAINBOW" - resume the game and then press the spacebar again. Now hit "C" to fill the pot with the current colour.

Arkanoid

● Press the spacebar to pause the game and type "DSIMAGIC". Press the spacebar again to catch the pill falling from the centre of the screen. Once you have done this you can call up the laser turret, extra paddles etc by typing the appropriate letter on the keyboard. "F" will take you to the final screen and the confrontation with DOH.

Hybris

● Once the game has loaded and prompts you to "PRESS FIRE TO BEGIN" press the spacebar instead. You should now be able to change the speed of enemy bullets, transformations etc with the mouse and keyboard.

Carrier Command

● First pause the game with the mouse button. Then type "THE BEST IS YET TO BE" (including the spaces) followed by the "+" key. You should now have invincible Mantas.

● Here are a few more goodies, this time from Kamikaze Andy, of Willettow, WA...

Afterburner

● Pause the game and type "together in electric dreams" - once the "s" is typed you should hear a digitised "Wow!" Now press "g" for more missiles, and the "<" and ">" keys to skip stages.

Sword of Sodan

● Start a game using any character, then die quickly. Enter your name on the high score table, and press the fire-button to start play again. Your new character will now have infinite lives.

Empire Strikes Back

● Press and hold the "HELP" key whil entering "XIFARGROTKEV" to enter cheat mode. Press "RETURN" to cancel the cheats.

The mysterious sounding *Shadow*, of PO Box 579, Rockhampton 4700, Qld, sent a long and detailed cheat for *Thundercats*. We haven't got room to print it, so if you'd like a copy then drop him a line. He is keen to swap both C-64 and Amiga hints. ❑

Commodore 64 hints and tips

● Andrew Tremewheere sends the following tips for C-64 gamers. All of them give infinite lives - to use them, simply load the game, reset the computer, enter the POKE, and then SYS to the location given to restart the game.

Brainstorm

Poke 18281,173 Then Sys 16384

To Hell and Back

Poke 32371,173 Then Sys 30464

Scooby Doo

Poke 7459,96 Then Sys 2560

Chubby Gristle

Poke 3613,173 Then Sys 2994

Gauntlet

Poke 49004, 96 Then Sys 32768

Amiga High Scores

- Bubble Bobble - 483,810 O. Webster
- Hybris - 749,680 Mark Webster
- Karate Kid II - 41,336 Owen Webster
- Leatherneck - 83,300 Owen Webster
- Major Motion - 50,658 Owen Webster
- Mousetrap - 10,120 Craig Webster
- Out Run - 3,053,976 - R Zagami
- Out Run - 1,854,382 Ian Baird
- Offshore Warrior - 626,345 J Booth
- Typhoon - 54,255 Owen Webster
- Whirligig -7,428 Jonathan Scowen
- Dragon Ninja - 105,030 R Zagami
- Double Dragon - 116,204 R Zagami
- POW - 106,065 R Zgami
- Arkanoid - 466,190 G Smyth
- ISS - 1,420,450 (undefeated) G Smyth
- Mindwalker - 306,214 P Schumacher
- Operation Wolf - 117,200 G Smyth
- Speedball - 10,335 (100 weeks) GS/PS

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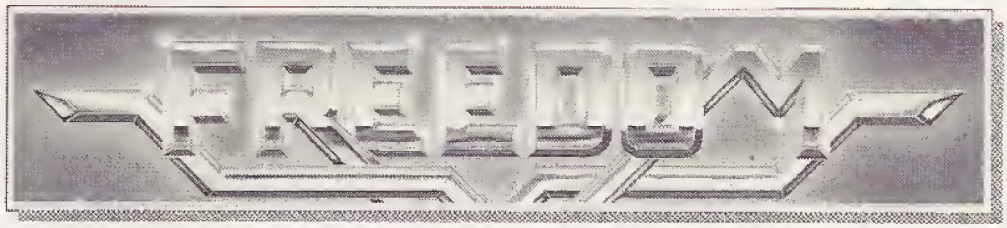


by Phill Campbell

THE HILLS ARE alive with the sound of drumbeats. African drums, pulsating to primal rhythms. There is tension in the air as night falls on the prosperous Grand Parnasse plantation. The slaves have left the carts of cane and gone back to their huts - there is outward calm, but it is the calm before the storm.

Meanwhile, the Owner sips his rum on the verandah of his villa. He reviews the month's figures with the Director and the accountant, quietly content. There are already 200 casks of sugar piled up in the storehouse - a good result. The Supervisor, though, is worried. The lashes of his whip are no longer enough to keep the rhythm in the fields. The wind of rebellion is blowing over the row of negroes' huts. But who would dare become the leader of a rebellion?

Well, I guess I could give it a try. I can spare half an hour, and besides, it's only a game. This is *Freedom*, a unique game for Amiga and IBM compatible computers. Programmed by French software house Coktel Vision, *Freedom* combines elements of strategy, role-playing and arcade action. The game unfolds like a movie on your monitor screen, and you are the star - your decisions, your actions and your abilities all affect the outcome.

The game begins, and you must choose a character. There are two men, Makandal and Sechou, and two women, Solitude and Delia. Each has particular skills, and each, like Bob Hawke, has a personal charisma rating. In the early stages of the game this is the most important characteristic - you are the instigator of the rebellion, and it is up to you to convince your fellow slaves to join you. Without support, you are bound to fail.

The main game screen presents a bird's eye view of the plantation. A cluster of huts lie near the bottom of the screen, separated from the main plantation homestead by a river. Other large houses are nearby, the homes of the slave-master, the office manager and the accountant. Cane fields lie to the left, with a storehouse and large windmill completing the settlement. Vicious guard dogs patrol strategic areas - they appear as small spots moving back and forth on the screen. You control another tiny figure, directing his movements with your mouse or cursor keys.

Remember, you are viewing the scene from above - your character is only just visible from the height of your vantage point. However, if you want a close up view of your position, simply press the "Enter" key or left hand mouse button. The view switches to ground level, and you can inspect everything in detail.

Graphics are evocative - Caribbean sunsets and brilliant hibiscus flowers are painted in lush colours on your screen. On the Amiga, the effect is brilliant. Animation, on the other hand, is rather sparse. In fact, the only real animation comes in the fight sequences - every now and then you must slug it out. Your joystick directs a variety of punches, kicks and jumps at your opponent. This phase of the game is much like any other "arcade beat-'em-up," though with fewer movements to choose from.

Sound effects are rather sparse too - good, but not often used. The African drum beats, for example, set the whole tone of the game, yet they stop as soon as the title screen disappears. I would not have complained if they kept beating right through the game.

Other than the occasional dog bark and intermittent drum beats the game is played out in silence. Even so, *Freedom* is unique. That in itself makes the game very appealing. As a strategy game, it will keep you thinking. How much support should you gather before you approach the manager's house? Should you burn down the storeroom first? Should you manacle your prisoners, or do away with them more permanently?

Wrong decisions usually have disastrous consequences - if you are captured, you are likely to have your bones broken with a hammer, or to have molten lead poured into cuts on your arms and legs. Ouch. Rebellion is a dangerous business. In future I think I'll try something a little more subtle - like refusing to take sugar in my tea. ❑

Review copy from Pactronics (02) 407 0261. RRP Amiga and IBM compatibles $39.95.

AMIGA

Mayday Squad

by Luke Tattersall

Have you ever dreamed of being part of "CI5"? Did you ever think that working with the "A TEAM" was a serious career option? Have you found yourself sometimes wishing you were part of the crack British SS group? If you answered yes to any of these questions then Mayday Squad is your kind of game. (If you answered yes to question 2 then you may also need psychiatric help). Luke Tattersall investigates ...

Some games are senselessly violent. *Mayday Squad* is violent with a little sense - a fast moving blast-em-up action game that requires just a hint of thought. As the game opens you are given the setting. The Lutonian Embassy has been over-run by The Red Legion. Your mission is three-fold:

- rescue the ambassador's daughter.
- free the prisoner
- kill the leaders of the Red Legion who are hiding in the building.

While you will need to plan your mission you will also need to move quickly as you only have a certain length of time before the Red Legion blow up the building.

First, you must choose your squad. The three man (or woman) team is made up of a Captain, a demolition expert and a communications expert.

You decide who will lead the group at any point in the game and you can only use the skills of that person when they are leading. You make your way around the corridors of the four floor building searching each room trying to find the the ambassador's daughter. The Red Legion are placed through the building, and you encounter them at every turn. You need quick reflexes to make sure you get them before they get you. You also need to take care not to shoot any innocent bystanders (such as the doctor or the prisoner).

The game is a winner with me. It involves the two things that I enjoy most in computer games. You have to plan and think about how you will approach your mission but most importantly you get to run around blasting everything in sight.

Your weaponry ranges from guns carried by each member of the team to the grenades and explosives carried by the demolition expert. You can open the doors in the building by using the lock picking skills of the communications expert or you can simply blast them out of your way with guns or grenades.

The graphics on the game are good though it takes some time to get used to which way you are facing as you make your way around the building. Your view of the game is from behind the three man squad and by selecting the pointer on the compass you choose the direction you will move.

The sound effects are very limited. The introduction music puts you in the mood for the game but suddenly stops before the game begins. The only sounds during the game are the gut shots and the explosions. (The communications expert on the team is supposed to be able to listen to things but I think the ones I chose were a little hard of hearing.) The game can be played from the keyboard, mouse or joystick. I used the mouse as I found that it gave me a greater sense of control.

If you find the game a little easy to begin with the difficulty factor of the game can be altered in a variety of ways. You can choose how many shots it will take to kill you, how many grenades the demolition expert carries, etc. I did most of my playing at the easiest level to try to get as far as I could in the game and found that challenging enough. I could see that in future games I would need to make it more difficult.

This one really caught my interest. I found myself drawing maps of each level and labeling the rooms so the next time I played I would be able to progress quickly. It is a game that you can come back to very easily. It leaves you thinking of new strategies and trying to figure out how to achieve your mission. *Mayday Squad* is a good "3D action/adventure game," and definitely worth a look. ❑

Distributed by Questor (02) 662 7944. RRP Amiga $49.95, C64 cassette $29.95, disk $39.95.

AMIGA

The Kristal

by Phil Campbell

The very English voice of Patrick Moore, CBE, is reconstituted from a floppy disk and pours smoothly from the speaker in my monitor.

"Millions of Galaxies, 2,000 million suns, the membrane web of space," says the voice somewhat lyrically. "On the edge of the galaxy are a cluster of provincial planets which revolve in a figure of eight around the twin suns Cree and Marm."

As I listen, pictures flash up on my screen. First, a galaxy. Then, a close up shot of a planet. "The largest and central planet is governed by Kling Nata, Lord of the One Way. The date, the 7th Dek of the Len of Cree, Earth time, 5053." Patrick Moore stops speaking, 36.87 seconds after he began.

This is by far the longest sample of digitised speech my Amiga has encountered. The sound quality is excellent. Few games open with such drama and style. This is *The Kristal*, and it arrives in Australia with a swag of glowing reviews from the English computer press. "An epic game with a style and content not yet matched in breadth of vision and development ... mind blowing," says *Computer and Video Games* magazine. "Hauntingly realistic," says *Amiga User* International. "What more could you wish for?" asks *Computer Games Weekly*. High accolades indeed, and so far they seem justified.

The introductory sequence concludes, the game begins. How long will the impression last?

It must have been a heavy night - I wake up in Novala Park on the planet Meltoca, not at all sure how I got here. Lush green trees surround my uncomfortable park bench, and a pathway leads to the right. The obvious thing to do is look around. My on-screen character is tall and well built, with dark hair flowing down a yellow skin-tight outfit. It highlights my pectorals nicely.

A push on the joystick sets him in motion. An easy stroll brings me to a huge and elegant building. Surrounded by an arched colonade, it is decorated in a fetching combination of powder blue and deep red. A beggar with no arms is loitering by the entrance. A cup hangs around his neck. He speaks, the words appearing in a cartoon-style balloon above his head. "Alms for a poor war veteran," he cries, confirming once and for all that programmers possess a rudimentary sense of humour.

I pause to chat with him, typing questions in a small window at the bottom of the screen. He answers intelligently, if somewhat vaguely. I give him five kringles from my money bag, and he responds by giving me a metallic ball covered with an etched design. What am I meant to do with it? Further exploration uncovers a ticket and a set of silver keys, neither of which seem immediately useful. I pick them up - they are sure to be handy sometime.

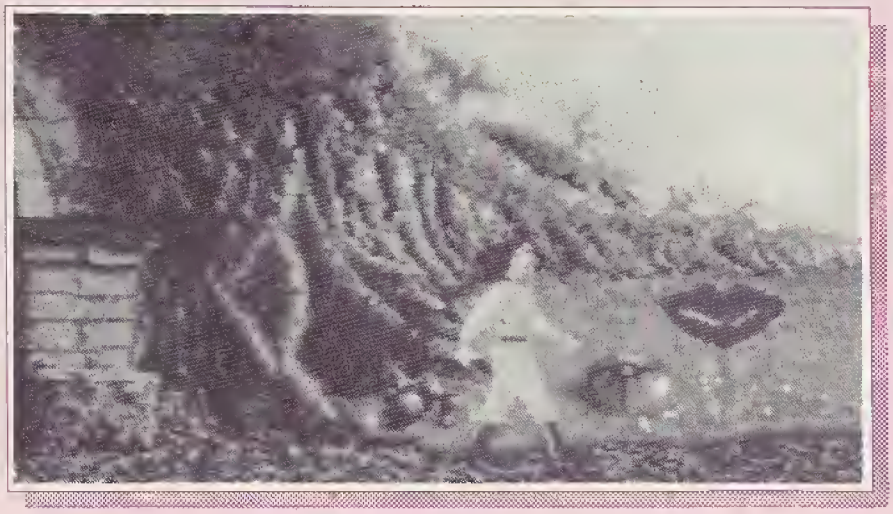
I meet a number of other unusual characters, all of whom are quite willing to chat. "Go with the flow," says Cyril the Sage. "Even dead dogs can swim with the tide," I reply, not to be outdone. But my wisdom is wasted - Cyril ignores my witty response and moves on.

Some characters are keen to fight rather than talk. Invariably, I lose - this is a typical joystick waggling sword fight sequence with sixteen different moves. None of them did me much good. Surprisingly, though, humiliation here does not seem to affect the outcome of the game.

A teleport bay provides easy access to my spaceship. This is an incredible vehicle, rich in classical decor. The woodgrain panelling and large spoked steering wheel really put the "ship" back in "spaceship" - there are even cannons mounted beside the bridge. I select a destination from the radar display and set out to cross the galaxy at hyper-light speed. The game moves smoothly into shoot-'em-up mode, and I attempt to pick off a swarm of huge space insects as I guide the ship towards my destination. This is not easy. My ship is bombarded, and forced back to the planet Meltoca. I must keep trying - after all, this is only Disk 2. Disks 3 and 4 are still waiting to be explored.

The Kristal is a huge game, full of appeal. It has something for everyone. The strategy and adventure elements have a top class parser to interpret your keyboard input, and character responses are impressive. There is a measured dose of arcade action and excitement in the fight and flight sequences - not overwhelming, but enough for action fans. Beautiful background graphics and good three dimensional animation join the elements of the game seamlessly - everything flows together naturally. There is a whole universe just waiting to be explored, and after a number of hours, I have only just begun.

At a recommended retail price of $69.95, the game is not cheap - but remember, you are buying a whole universe. Compared to the price of Sydney real estate, *The Kristal* is a bargain. ❑



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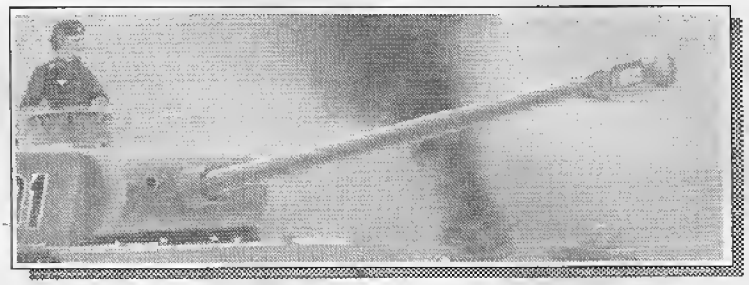
Fire Brigade

By Barry Bolitho



How would you like to play the wargame that is played by the U.S West Point Military Academy? Easy, just boot up *Fire Brigade* on your Amiga and away you go! (MS: Minimum requirement is 1 meg of memory). *Fire Brigade* is the first computer wargame from Panther Games, an Australian company who already have three good board games to their credit.

The Fire Brigade of the title is the 48th Panzer Korp - the striking arm of Army group South. The battleground is Kiev, winter 1943. The German army is in retreat to the Dnieper river to rest and regroup. Fighting hard all the way, the Germans take up their new positions with the Soviets hard on their heels. From a bridgehead near the town of Lyutesh, the first Ukranian Front, an offensive is launched under the command of Marshal Vatutin to cut off the Army group South.

So begins the first of the four scenarios in this breathtaking wargame. Using icons and pull down menus, the structure is user friendly, and overall the game is easy to learn, although it might take time to know the game and to play it well. You can choose to play solo (at a desired skill level) or against the computer. Two player options can be enhanced by using two machines linked via modem or even just via cable.

The graphics and sound are impressive, and really utilise the available memory. The packaging is attractive, containing an 80 page detailed player's guide, as well as map and battle order cards.

This is a complex computer wargame that utilises the power of the 16 bit computer to its fullest. It has a powerful artificial intelligence that sets it apart from its contemporaries.

Space prohibits a complete detailed review. It is a big detailed game that can take anything up to eight hours to play, depending on the scenario selected. There are three skill levels and a save game routine.

This game was designed for the thinking man/woman who wants a detailed wargame that will wring the utmost out of his computer. If you are a novice, do not be put off by the above remark.

The tactical approach is so different that we cal start to play *Fire Brigade* as beginners, in fact, old board gamers have to unlearn quickly, or like me, will fall in a big hole - or the Dnieper.

One of the best and most detailed wargames ever designed. Panther Games, take a bow. ❑

Review copy from Mindscape Int (02) 899 2277. RRP Amiga $49.95 For Amiga with 1 meg memory.

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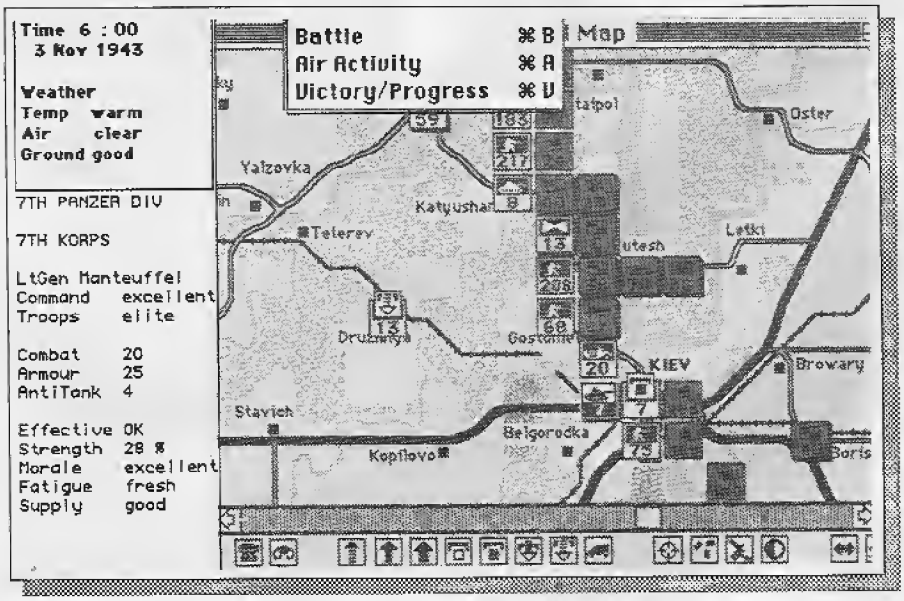

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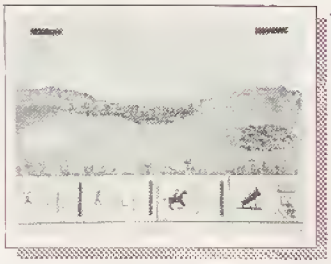
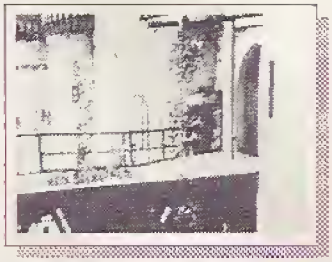
Joan of Arc





by Eric Holroyd

I suppose the writers of this strategy game/graphic adventure would have expected that it would be compared with *Defender of the Crown*, and I must confess that such a comparison was the first thing that came to mind when I first looked at it. It's only a couple of years ago that I was dithering about whether to buy an Amiga or not and I'd listened to friends telling me of the wonderful graphics and sound capabilities plus the speed of the screen updates and so on, but it wasn't until a friend sat me down in front of *Defender of the Crown* that I was finally convinced.

The effects in that program were just so good (the flickering flames of the campfire were what really got me, believe it or not!) that I just had to have an Amiga to be able to play it, and others they were telling me about, for myself.

Joan of Arc prompted a comparison, and it is similar in concept, but as the country, characters and general situations are so markedly different it stands on its own merits as a good adventure game. It got me in just as the other one did!

Well-presented, the game comes on two disks with a large double-sided sheet of instructions which tell you that the time-frame is 15th century France and you are Charles the Dauphin (successor to the throne). The 100 Year War is in progress, this was the one where various Kings of England had laid claim to the whole of France since the time of the Normans. There's some doubt as to your legitimacy to succession and the city of Orleans is under siege by the English army and, as Orleans is the key to your entire defence system, you desperately need a miracle.

The aim of the game is for you to be crowned King of France, with the help of God and Joan of Arc says the instruction sheet, then drive out the English and free all of the French Provinces.

You'll know a lot about the history leading up to this period as there's a series of screens showing a series of book pages, with text on one side and a picture on the other, telling all about the central characters. This is very well done, and a mouse click flips the pages over.

The program asks if you have one or two drives and then you're shown a map of France whilst some medieval music plays. You have the choice of joystick, mouse or keyboard control with selection being done by pressing fire, mouse button or any keyboard key. The instruction sheet lists all the towns and principal characters, also outlining the various aspects of the intrigue which goes on between them.

Just as in *Defender* you'll need to Raise an Army and go into battle at places selected on the map, and knowledge of these factors is a great help. Several arcade-type games take place during this adventure where again you may use any of the three control options, and although they're pretty basic games they add to the general flavour of the whole thing.

All the strategy-type options are there: Weather Forecast, so that you'll know best how to prepare your military campaign; Political Powers, to help you handle the various events; Tithes & Taxes, to raise money for your campaign; Espionage, to get intelligence from enemy provinces; Royal Justice, three different procedures for dealing with prisoners etc. Re Justice: If you capture an enemy leader, have him beheaded. It'll save you a lot of trouble later! There seems to be plenty of interest here and I'm sure that aficionados of the genre will recognise the ingredients.

I didn't play it all the way through as there simply wasn't the time to do that (it could take weeks!) but I played it enough to know that it's the kind of adventure that grabs a lot of gamers and it seemed to me to be a pretty good example in its category. ❑

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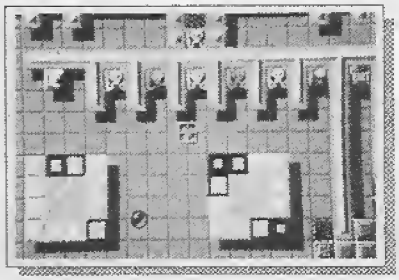
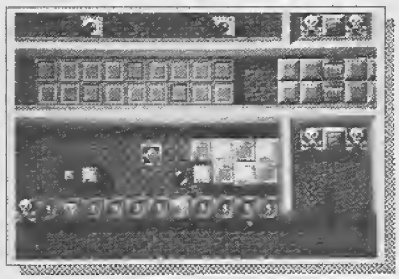
Jeepers creepers - what happened to my peepers?

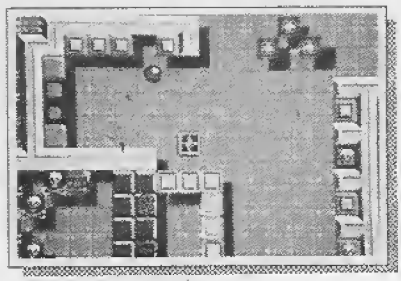
Phil Campbell laments the onset of a new disease - Computer Induced Eyeball Meltdown.

My eyeballs feel like they have melted in their sockets. Twisted, squashed and stretched too often, they are registering a painful protest. Many new computer games have gone too far in their search for video novelties. The fact of the matter is this - the tricks they deliver are more than my feeble peepers can cope with.

The two worst offenders on my Amiga are *Titan*, a fast paced ball-bouncing affair, and *Wanderer 3D*, a space shoot-out packaged with a pair of movie-style 3-D glasses. Both are distributed in Australia by Questor (ph 02 697 8666). *Titan* is rather addictive. The time honoured *Breakout* theme has been taken to new heights - bat, ball and bricks remain, but every other aspect of the game has been stretched enormously. The playing field is huge, the action is fast. "Super fast graphics make this one so addictive your eyes will turn into spinning kaleidoscopic squash balls," says a caption on the box. Before you play, ask yourself this question. Do you really WANT spinning kaleidoscopic squash balls for eyes?







Titan

There are 80 levels, each with a unique combination of bricks, barriers and hazards to negotiate. The full Amiga screen is used, but even then only a fraction of the playing field is displayed. As you move your magnetic control unit - a high-tech ping-pong bat - the whole screen slides back and forth to reveal the rest of the arena. This is clever. And it all happens very fast.

But bear in mind this sliding background is covered with vividly coloured geometric patterns. Imagine a seersucker table cloth gyrating right in front of your face and you'll be getting close to the effect. Now try to focus your eyes on the silver ball bouncing around the screen. Gurk. I survived the first three levels. But level 4, set on a margarine yellow backdrop, was literally nauseating. I still feel quite ill.

Wanderer 3D is different. It produces headache rather than nausea. To be fair, though, I don't think the game itself is at fault. Anything that uses those infamous cardboard glasses with red and blue lenses has exactly the same effect. Remember the Three Stooges TV special in glorious 3D? Without the special glasses, all you could see was a blurred double image. With the glasses on, every so often the double image would coalesce into a fairly realistic three dimensional picture. Exciting stuff, up to a point.

Wanderer 3D

Likewise with *Wanderer 3D*. Playing the part of a space mercenary, you cruise the space-lanes in search of fame and fortune. And these are genuine 3D space-lanes. To the naked eye, the screen simply shows a scattering of red dots matched by a smattering of blue ones. Put on your cardboard space goggles, though, and you are drawn into the screen, and on to adventures beyond your wildest imaginings. In theory, at least.

And the effect really does work, especially in the hyper-space jumps; stars spiral by very nicely. Enemy ships, drawn in vector style, spin smoothly, and fly out of the screen rather well. So far, gameplay seems a bit tedious though. The alien ships just swan around the screen until you pick them off, without offering any serious resistance. And between space sectors you must play some sort of complex card game, which for the life of me I cannot understand.

It could well be that I have misjudged this game completely. I will never know. I had such a headache after the first half hour that I had to pull the plug on *Wanderer 3D*. My optic nerves could no longer cope. You may do better. You may have a much more sturdy constitution than I do. And you may thrive on the sheer physical challenge of games like these. After all, some people pay money to go on the "Zipper" at the Royal Easter Show. The overall effect is much the same. As for me ... I'm going for a quiet lie down. ❑

Titan RRP $ Amiga $59.95, C64 cassette $29.95, disk $39.95.
Wanderer 3D RRP, Amiga $49.95, C64 cassette $29.95, disk $39.95.

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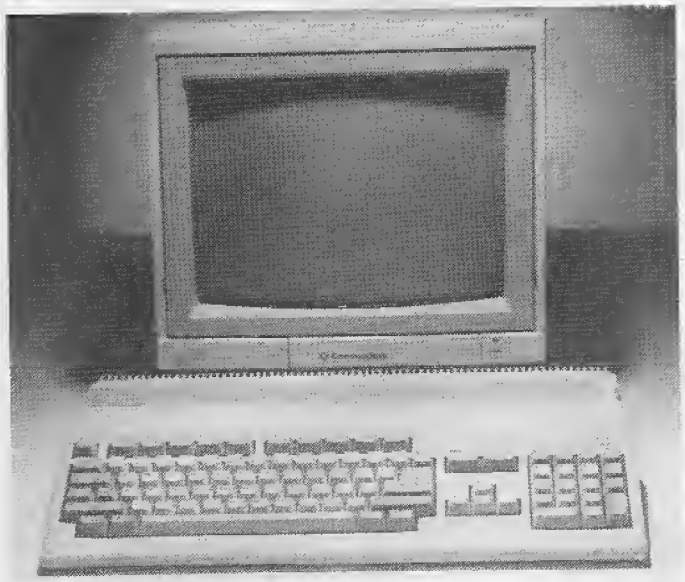

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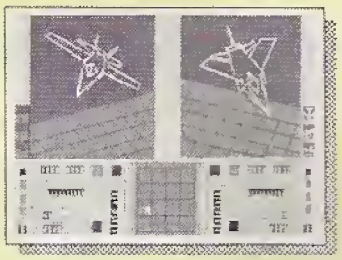


by Phil Campbell

A good thrill is hard to find these days. Almost every game I have seen in the last few months has had "excellent graphics" and "remarkable sound effects." But lots of them are no fun to play - and all the Hi-tech effects in the world are no substitute for good, old fashioned thrills.

Sky Chase, though, is fun. It is billed as "the fastest, smoothest jet flight simulator ever," which may or may not be true. Who cares? Take it from me, this is a game you will love to play - especially in two-player mode. Some flight simulators are extremely complex, designed to be played only by off duty pilots. The famous *Flight Simulator Ii* falls neatly into this category. Anyone who has mastered it has my undying respect.

Sky Chase, on the other hand, does not expect you to master a complex set of controls. There is no 500 page manual. Flying is easy. All you have to worry about is blowing your opponent out of the sky before he does the same to you. This is the classic Dog-Fight - all you need is a fast plane, smart tactics and razor sharp reflexes.

Before the game begins, you are faced with a huge array of options. This is the only complex part of the game. There are six jet fighters to choose from - the F-18 Hornet, F-14 Eagle, F-15 Tomcat, F-16 Falcon, MIG-31 and MIG-27. Each is different, and the capabilities of the actual aircraft are accurately simulated. You may also choose to fly a Paper Airplane - the ultimate "ultra-light aircraft," incredibly fast and ultra manouevreable.

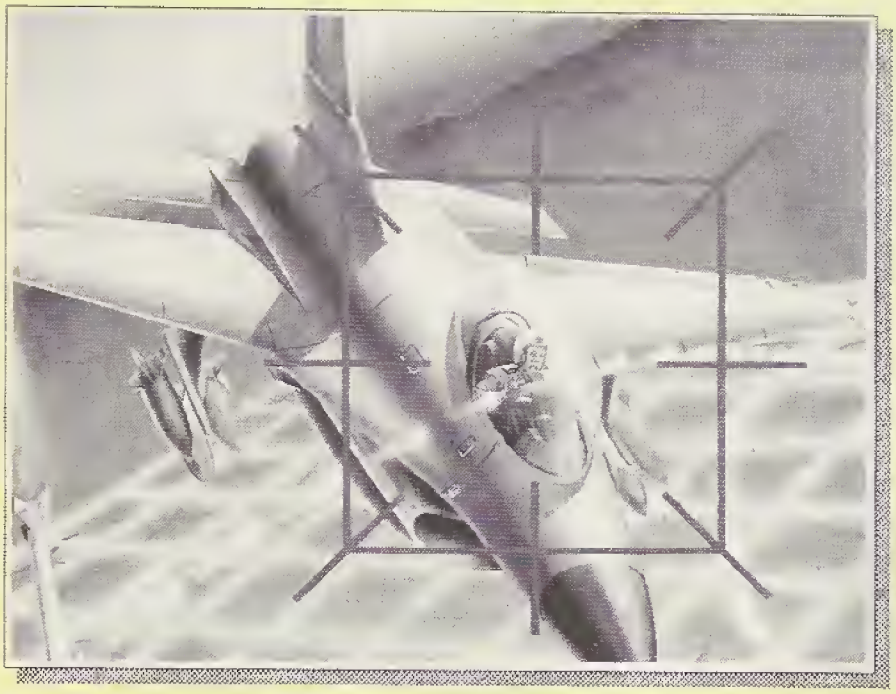
Other features of the game can be configured to your own liking too - fuel and ammunition supplies can be increased to extend the game, or to give one player an advantage. Set these quietly in advance, then invite someone to join you for a game. You may like a little practice with the computer opponent first - with levels from "Easy" to "Ace," you can gradually hone your battle skills.

The game begins - the planes flash past one another at top speed, and then the fight is on. There are two cockpit displays, one for each pilot, which take up the bulk of the screen. Underneath, both left and right players have a complete set of instruments. A shared radar screen fits neatly between the instrument panels, showing the position of the left plane in red and the right in white.

Graphics are simple. The ground is simply a grid - there are no Golden Gate bridges to fly under, no cities, no mountains or hills - just a series of green criss-crossing lines. But this is not a game for tourists. The grid gives perspective, and it does it well. As you climb, the grid scale shrinks; as you dive, it grows alarmingly. The jets are drawn in wire-frame style on the screen - again, pragmatic rather than pretty. Wire frame animations are fast, much faster than solid 3-D renderings. And in *Sky Chase*, speed is all important. A head to head conflict between two F-18s flying at full throttle is not a slow affair.

Sound effects on the Amiga version of the game are in stereo, with the right and left channels reflecting the sounds of the right and left players. This is a nice touch. As with the graphics, practicality has a high profile - engine sounds get higher pitched as jets approach, and lower as they move away, giving audio clues about the relative positions of the jets.

Sky Chase is a real blast. It's not as pretty as a lot of the games I play, but it's a heck of a lot more fun. What more do you want? ❑



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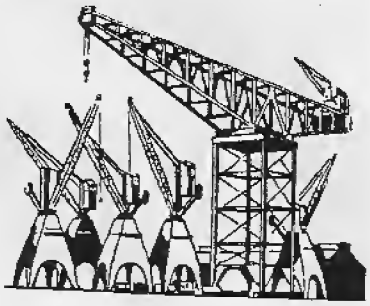

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Realm's Birthday Bash

Welcome to Adventurers' Realm 3rd Year birthday special!

To celebrate I'll be taking a step back through time to events that shaped the world of adventuring over the last three years. Wargaming veteran Barry Bolitho will give his rundown of the best wargames released, and Kamikaze Andy has some sad news regarding Infocom. To top it all off, we have a huge selection of the Realms best hints and tips. First, let's step into Adventurers' Realms' time machine...

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September 1986 ...

● The Realm was born! Sole intention of Adventurers' Realm was (and still is) to provide adventurers with assistance when they need it, and to keep them well informed.

Top selling adventure game that month was *Lord of the Rings*. An Australian produced classic - it became a worldwide hit. It was Melbourne House's second adventure winner, the first being *The Hobbit* - also an adventure based on J.R.R.Tolkien's classic fantasy novels. Meanwhile from the UK, *The Pawn* appeared on our shores, an exciting adventure that looked quite impressive on the then baby Amiga. This, Amiga adventurers discovered, was just a taste of things to come! Infocom, creators of the *Zork* series, released *Ballyhoo*, a text adventure based on life at the circus. The Realm's first Zorker of the Month was Natalie Hibbert of Bentleigh, who started her letter with a now familiar remark among Zorkers: "I am a 14 year old girl who will probably end her life if you don't help me soon.."

January 1987 ...

● Infocom released two smashing adventure games that took the world by storm. Firstly *Trinity*, a mammoth adven-

ture sending the player back in time to solve the development of the atom bomb and prevent World War III. It was a very thought-provoking game featuring text descriptions that put even the best graphics to shame, and a parser so sophisticated it took three years for another game to match it.

Then there was *Leather Goddesses of Phobos*, a raunchy, sexy, space adventure that left players in fits of laughter. Infocom, well aware there are just as many female adventurers as there are male, programmed the game to cater for both sexes. Infocom and adventure games seemed to rule the world! Average mail intake for the Realm was 15 letters a week.

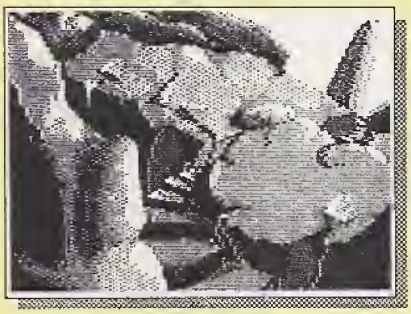
July 1987 ...

● Computerized wargames begin to appear by the dozen, so veteran Barry Bolitho joined the Realm to cater for wargamers needs. No-one could have been more suited to the job, as stored in Barry's head were accounts of almost every battle fought in history!

Magnetic Scroll's second graphic wonder *Guild of Thieves* appeared on the market. Meanwhile its predecessor *The Pawn* became less popular among adventurers as the graphics appeal wore off.

November 1987 ...

● Adventurers' Realm opens a help booth in Toyworld (Melbourne City store). Many adventurers of all shapes and sizes cram into Toyworld to obtain free hints sheets, maps, hint and tips, and to chat with each other, as well as operating Garryck Osbourne's adventure database. Hint sheets proved so popular that more were produced and available free by writing to the Realm. (20 different hint sheets are now available!)



The Pawn

Corruption

December 1987 ...

● As a very prominent year drew to a close, Infocom released the long awaited sequel to *Zork* ... *Beyond Zork*! This was one of five new Infocom releases that month. Then suddenly, Infocom seemed on the brink of bankruptcy after trying to enter a product in the fierce IBM business market. This resulted in a takeover by Activision, and as Kamikaze Andy reports, Infocom seemed to head downhill.

April 1988 ...

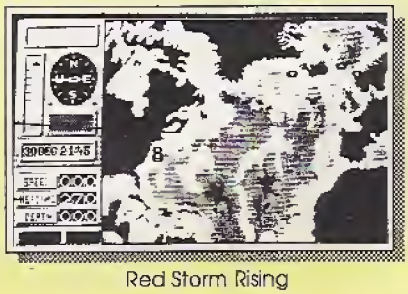
● Melbourne House in the UK sold out to Mastertronic, though retained the Melbourne House name. Meanwhile, in Australia Melbourne House disappeared and became SLM Publishing. We published a very open and controversial interview with Beam Software (programmers of *Lord of the Rings* and *Shadows of Mordor*). The interview gained them criticism in UK magazines. Quotes like "I loathe adventure games" didn't sound too good from producers of top selling adventure games.

June 1988 ...

● Down Under BBS became the Realm's first official adventure BBS offering hints and tips. Try them on (02) 674 6647.

September 1988 ...

● Magnetic Scrolls release *Fish*, a totally original and humourous fishy spy adventure that gathered awards everywhere it swam. Another notable release from Magnetic Scrolls was *Corruption*, an original game that matched *Trinity* in playability. The Realm started its most controversial debate ever as it tackled the problem of adult-only software. Terminal BBS became the Realm's second official BBS. Their number (09) 3898048.



Red Storm Rising

October 1988 ...

● Kamikaze Andy (alias Andrew Phang) joins the Realm team to tackle problems in role playing games in his mini-column The Dungeon. Andy had been involved indirectly with the Realm since day one, his adventure and role-playing ability are beyond what I've ever seen. He solves Infocom games over breakfast and *Bard's Tale* over dinner! He came just in time too, as problems for *Zork* became outnumbered by the *Bards Tale* series.

February 1989 ...

● Wargames flood the market. *Red Storm Rising*, based on World War III, hit very close to home. As adult software was still a touchy topic *Red Storm Rising* made a lot of people nervous because it simulated a war that could possibly happen.

April 1989 ...

● *Reach for the Stars* launched itself onto the Amiga. Already a classic, Australians Roger Keating and Ian Trout showed that you can make a good game better - and they did just that!! *Reach For The Stars Version 3* brought a new audience to Australian software as it sent players to far-off galaxies to set up new colonies!

September 1989...

● Well, three years down the track and the Realm is receiving approximately 150 letters a month. Adventure games have transformed from the simple two-word input commands to sophisticated challenges that really push the hardware to its limits, whether it be an Amiga or a C64.

I believe the adventure market can only get bigger and better. Strategy games are now pouring in from all over the world. Not only are they educational, but great fun - and they appeal to people off all ages, from 8 to 80!!

As long as adventure games are around the Realm will be there to help you out and keep you informed. ❑

Wargaming the Realm

by Barry Bolitho

MY FIRST REAL wargame simulation was a cassette version of *Silent Service*. Looking back over three years of software releases, I can still list *Silent Service* as one of my most played simulations.

Mike has asked me to list my favourite wargames for this anniversary issue. What an impossible task! I can happily report that there are just too many to mention. Anyhow, here goes....

Crusade of Europe arrived soon after my disk drive, and what a hammering it got! From D-Day to Ruhr, *Crusade* had and still has enormous potential with its many scenarios and big campaign game. An excellent simulation to make the transition from board gaming to the world of the micro chip much easier. Simulating air and naval combat is far more realistic on a computer than a board game.

I was impressed with *Ace 64*. I found it fun to fly, even if air to air refueling and landings caused the screen to light up with spectacular crashes. Considered by some as dated and not a real flight simulator, this snappy little fighter still duels with graphically solid fighters on my screen.

Flight simulators really grabbed me when up in the Apache *Gunship*. I always wanted to fly a helicopter. Now, on computer, I can. While on the subject of flight simulators let's jump forward a little and mention *Stealth Fighter*. I have clocked up bulk hours in the F-19. It is no secret that the F-19 is operational. In my view this is the best flight simulator so far on the C64 - again, detail and realism are exceptional.

Anyone who has limped home in a damaged *Gunship* with one engine knocked out, or watched a pursuing fighter come up on radar and then into visual range will know what a buzz this can be. Back down to earth again.

The game *Nam* became addictive, mainly because it was so challenging. It took a lot of hours before I could even look like holding my own against the crafty N.V.A computer.

What is my favourite SSG game? Actually, all of them. *Reach For the Stars* is the most played. But there are too many well researched historical games to mention here. From *Battlefront* to *MacArthurs War*, with all those add on, type in, extra scenarios, how can you choose between them?

I'll duck this one and pick my favourite scenario out of them all. This is *Operation Hercules*, the Hypothetical Invasion of Malta by Axis Forces from the Rommel game. One of the great What If's of history. Games in Rambo style include *Airborne Ranger*, a challenging one-man strategy/arcade 3D terrain with excellent graphics on the C64. You can spend endless hours behind enemy lines as your ranger attempts to complete a variety of missions against tough odds.

Red Storm Rising is an altogether different submarine simulation. This time it's WWIII and submarine weapons and tactics are a whole new ball game. Getting to grips with modern technology is challenging and informative. New tactics are required to survive in a 1990's missile environment. It is very involving and time consuming, one of the very best. Compare it to *Silent Service*? No can do. *Silent Service* is the best submarine simulation of the Pacific War in WWII. *Red Storm* is the equivalent for a potential WWIII. Each stands on its own for it's time period.

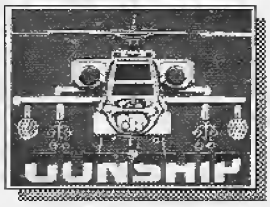
On reflection I find my time spent battling on or under the ocean more than land battles. With *Warship* I spent a lot of time in surface gun actions in the Solomons. Japanese long lance torpedoes can really spoil your day! *Warship* and *Battlecruiser* both have easy to use design features so you can create your own scenarios. *Battlecruiser* has every warship for both World War I & II listed. Time permitting, possibilities are only limited by one's own imagination.

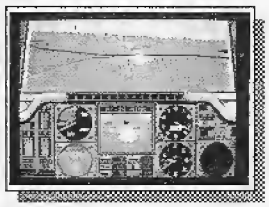
Before we get to the present, I must mention *Strike Fleet*. Another modern day naval simulation that is not for the faint hearted. Brilliant graphics on the C64, with some of the most interesting scenarios that test your strategic skills to the limit.

At present I am totally hooked on *War in the South Pacific*. This is a massive simulation that re-creates the battles in and beyond the Coral Sea. To me this is the ultimate wargame of a time period and an area that I find absolutely absorbing.

Good things ahead with the release of *Battle of Napoleon*. SSG are about to release a series of games on this topic.

To recap, we have looked at many wargames during the time of this column. It is to the programmer's credit that I have only three games gathering dust on my shelf. All the above titles plus others which could not be mentioned will be played time and time again. ❑





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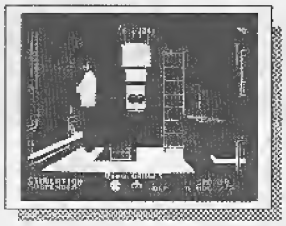

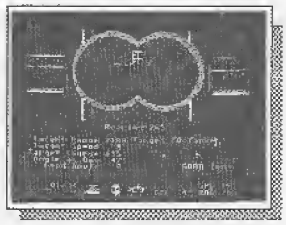

Silent Service

Another Official Realm Bulletin Board

YES ALL YOU modem adventurers, we have another BBS willing to be part of the Adventurers' Realm network, this time for Victoria. Island Bulletin Board is the name, and the BBS number is (03) 742 3993. Free of charge, and available 24 hours a day, packed with hints from the Realm. Try them out!

Well, that's all for this special birthday edition of the 3 year old Adventurers' Realm. The gang and myself will be back next month with more juicy tips, reviews, debates, funnies and anything else we can think of, so stay tuned! ❑

The rise and fall of Infocom

by Kamikaze Andy

WHAT WOULD you say if I told you that the bastion of all adventuring, the one and only Infocom (inc), is being shut down? That's right, shut down!! By now I'd bet most of you would be on the verge of Hara-Kiri begging me to tell you that it is all a joke. Well, it isn't. In the worst crisis ever to hit adventuring, Activision (which bought Infocom over two years ago), has decided to close up Infocom's headquarters in Massachussets and move the entire company to their Californian base. According to Activision, the change is due to financial pressures and market conditions.

So what does this mean for the future of Infocom? Well, Activision will still use the company name - they would be stupid not to - but Infocom's output will be drastically changed. There will be an emphasis on graphics and sound in each product, as is the trend with current games (like *Shogun* and *Journey*). There is also talk of developing a system akin to the style of *Deja Vu*. Because of the success of the role-playing market, the majority of future Infocom products will tend this way. These developments sound exciting, but remember, to have all these improvements something will have to be sacrificed. The fear is that the loss will be in the story telling side of Infocom.

Surely, you say, if Activision will continue with Infocom then nothing will change? It's only a change in location, right? We will still see brilliant new adventures from the likes of Marc Blank, Dave Lebling, and Steve Meretzky, right? WRONG! Although Marc Blank is currently developing a new title for Infocom, the big bombshell is the refusal of the other two to Go West along with other Infocommics!! Apparently negotiations are still under way between the two authors and Activision. But there is little hope of a positive result. It is highly likely that the adventuring world will not see another title from the authors of such classics as *Lurking Horror*, *Planetfall*, *Stationfall*, *Hitchikers Guide*, and *Zork* - at least not from the Infocom stable.

What could have happened? What went wrong? A major contributing factor was Infocom's ill-fated decision to enter the highly competitive database market with *Cornerstone*. It was the dismal failure of the database which lead to heavy financial losses, and finally to the takeover by Activision. From then on life at Infocom was never the same.

There was severe discontent within the ranks of the company. Letters were sent to computer magazines (apparently under the name of Jeff O'Neil, author of *Ballyhoo*) complaining about Activision's role. The letters claimed Infocom staff were fined for each criticism made about the company. Secondly, that Activision were using Infocom as a dumping ground for products they did not want to publish themselves (such as the unsuccessful Infocomics). Although Infocom and its parent company, Activision, denied these accusations it was clear to the computer industry that something was very wrong at Infocom.

Things went from bad to worse. Infocom lost the services of Brian Moriarty (*Wishbringer*, *Trinity* and *Beyond Zork*) to Lucasfilm Games. Then they lost their manager, Christopher Erhardt. Even Infocom president Joel Berez resigned to concentrate on "other businesses". Finally, there is the current situation and the potential loss of Meretzky, Lebling, and also of Mike Dornbrook (creator of the *Zork* user group).

Can the days of Infocom be numbered? Adventurers worldwide hope not. When one thinks of Infocom, one thinks of adventure. Many adventurers dream of being an author for Infocom - I know I do. ❑

Problems, problems, and more problems (or the troubled adventurers' dept)

David Marjanovic, of Revesby in NSW is having a hell of a time in *Shadowgate*. The following problems have him puzzled....

- How do you get past the stone sentinels in the cave?
- How do you cross the lava pit in the cavern (what do you do to the huge statue)?
- Can you kill the hobgoblins in the armory?
- Where is the key to the left hand door in the banquet hall?

Then, in the game *Uninvited*, David has the following problems:

- How do you get the keys from the devil, and are there any other keys?
- How do you open the door in the study?
- How do you get rid of the ghost in the kitchen bedroom?

Any takers for David's mountain of hellish problems?

Peter Judd of Bendigo in Victoria is stuck on the puzzle in *Ultima IV* at the bottom of the Stygian Abyss "What is the one thing which encompasses and is the whole of all undeniable truth, endending love, and unyielding courage?"

The *Revenging Rigel* is taking its toll on Dean Morris of East Balling, NSW. He can complete most of part one, but then gets stuck with the rest. Is there any way of escaping from the guards whilst in the net, and is it possible to climb down the lift shaft?

Finally, Graeme Johns of Marbein in Victoria is stuck in Drak! He writes..."I have got to the bit in it where there is a thing in the last room when you come out of the dark room you go to the last door on the left. I don't know what the wardrobe thing is!" Sounds totally confusing to me - can anyone help? ❑

Adventure chit-chat

Christian Murfett writes...

"Some of my friends and I have formed a computer role-playing and adventure club. We already have quite a large following and are always looking for new members. We cater for Amiga, Commodore 64, and Atari ST computers. Anyone wishing to join can write to me for a membership form. No entry fees are needed." MS: Thanks, Christian. If anybody would like to join, the address is 59 Hunter Street, Queenstown, Tasmania.

Shane Crilly of Goodna in Qld is one of many adventurers asking me for hint sheets for the trouble trio *Temple Curse*, *Last Planet*, and *Island of Spies*. Unfortunately, I do not have a hint sheet for

these games, but welcome any which get sent in!! Many of you have been asking what format to use when submitting hint sheets. Well, basically, it has to be approximately one A4 page, which covers the major problems in the game. Cryptic clues would be better.

Finally, my reviewing techniques take a bashing once again. This time, Robert Prowse of Ballarat in Victoria questions my *Corruption* review... "The review in AC&AR of *Corruption* was to my mind a little overrated. The 99% given implied that the game was without fault and with no room for improvement, perfect for everyone to play. *Corruption* may be good, but will it go down in history of gaming as a never-to-be-forgotten masterpiece?" MS: Well, I thought *Corruption* was quite good, and a great improvement on *The Pawn*. I couldn't find fault with the game. What do people think? ❑

Adventure funnies

Many adventure games have hidden funnies. Here are some of the best sent to the Realm over the last three years.....

Hitchhikers Guide to the Galaxy

● Have a look under you bed. Enjoy the mud. Listen to the shell. Petting the dog. Look in the mirror. Kiss the girl at the cafe

Leather Goddesses of Phobos

● In Tame mode, after finding Trent/Tiffany type Score. Repeat in Lewd. Try entering Score with Tiffany/Trent When entering Lewd for the first time, enter an age over 120. When entering Lewd for the first time, enter under 18, then try entering Lewd again!

Perry Mason

● Flush the toilet. Turn on the TV in the den. Look in the mirror

Sherlock

● Pick up the sleeping Daphne, drop her in your armchair, then sit in it! Try hailing two cabbies in Baker street.

Tell Watson and Lestrade that they are guilty!

The Hobbit

● Tell the gang to cross the black river. Wear the ring and kill Thorin or Gandalf.

Zork II

● Try killing the princess.

Continually attacking the dragon without him following you. Killing or hurting the demon.

Deadline

● Try to follow Mr Robner. Arrest Duffy.

Have a go at reading the end of the novel in *Deadline*. Try hitting George with a newspaper.

Sleeping on one of the beds.

Witness

● Kick the cat.

Planetfall

● Kick the bucket.

Help, Tips, and everything else!

Yes folks, as promised, here are enough tips collected from previous Realms to last another three years...enjoy!!!

The Hobbit

● The magic door can be opened by wearing the magic ring. To get across the black river, throw rope across, then pull rope. To escape from the cell, go to the butler's room, and when a barrel is thrown, jump onto it.

To escape from the other cell, get one of your mates to carry you through the window.

To escape from the bulbous eyes, wait twice before moving.

WarGames

● To get the shiny object, wear the gas mask from the sickbay. To get over the fence, join two pipes together and jump!! To escape from the sickbay, you need the scissors (under pillow), screwdriver, and gloves. Lever panel and then cut wires.

Zork I

● The only person who can open the egg is the thief.

Repeat yourself (E..O) to get the platinum bar.

Cyclops problems? Try saying Ulysses.

The machine makes diamonds coal needed.

Zork II

● You can read the cakes.

Basket + canvas = hot air balloon (burn paper in receptacle). To get out of the vault, go north!!

The maze of rooms is a baseball pitch! Hold the bat and run the bases! Guess who the collar is for. Woof Woof.

Zork III

● Sheer determination and strength will make you eventually beat the shadowy figure!

Give some bread to the old bloke.

Hello sailor!! (When a ship floats by)

Scared of the dark. Try the grue repellent just in case.

Lord of the Rings

● Green Knight? Enter Kill Knight (without sword) a few times. Red Lady? Kill her, but you'll need a sword.

If the fissure has got Sam and Pippin, go to Tom's house and ask him for help.

Jinxter

● The plastic key can be melted to fit a mailbox.

Listen to the magpie to get some useful info.

The can of worms are useful for dirt mounds.

The sock and the bung are useful for canoe holes.

Guild of Thieves

● The ingredients for the cauldron can be obtained from the macaw. To open the opaque case, get all four coloured die, go to the case and roll all the die until they come up with a five. Insert the respective coloured die into the coloured slots.

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Hollwood Hijinx

● The statue will open the front door, after you turn in a few directions. Fire the cannon to find something beneath it.

Join two useless pieces of paper to make a useful map. Hold the bag before opening the window.

Mask of the Sun

● There are two masks one is the real one.

Maze 1 right left left left

Maze 2 Move around 75 times.

Ignore the salesman - hit potion is for coughs.

Deadline

● The holes in McNab's rose garden would suit a ladder. Read a few pages of the calender, then show your findings to George, then hide in the library and watch what happens.

Check the dinner set in the kitchen.

Fill the pad with the pencil.

Have a good read of the newspaper.

Beyond Zork

● Look into the grey sphere for a magic word.

For good luck, rub the rabbit's foot.

Squeeze moss for dexterity.

Use the bottle to read the amulet.

Sharpen the axe with the honing spell and axe the puppet.

Castle of Terror

● Yes, there are two mills.

Use a rung from a ladder to lock the lock.

You'll need the rope from the mill.

Buy the old geyser a drink, then wait around.

Book plus bookcase could be your way out.

Hitchhikers Guide to the Galaxy

● The engine room is ok.

Tell the guards to drop their guns

If you have tea, and no tea, that makes you quite intelligent. Drink three pints of beer.

Lack of senses? Sniff Sniff.

Look at Arthur at the party.

Advertisers' Index

Amiga - Live	61	Interlink	43,44,45
Annuals	32,61	Island by Mail	27
Artscape	7	Lazarus Ribbons	71
Briwall	24,25,26	Maxwell	9
Cockroach	11	Megadisc	35
Commodore	51,59,63,IBC	Mindscape International	OBC
Computer Discounts	29	Ozi Soft	5
Computermate	39,47,49,50,54,58	Pactronics	5,IFC
Computerscope	21	Parcom	23
Computer Spot	16,17,18,19	Power Peripherals	31
Disk Magazines	52	Prime Artifax	66
Fairstar	33	Questor	65
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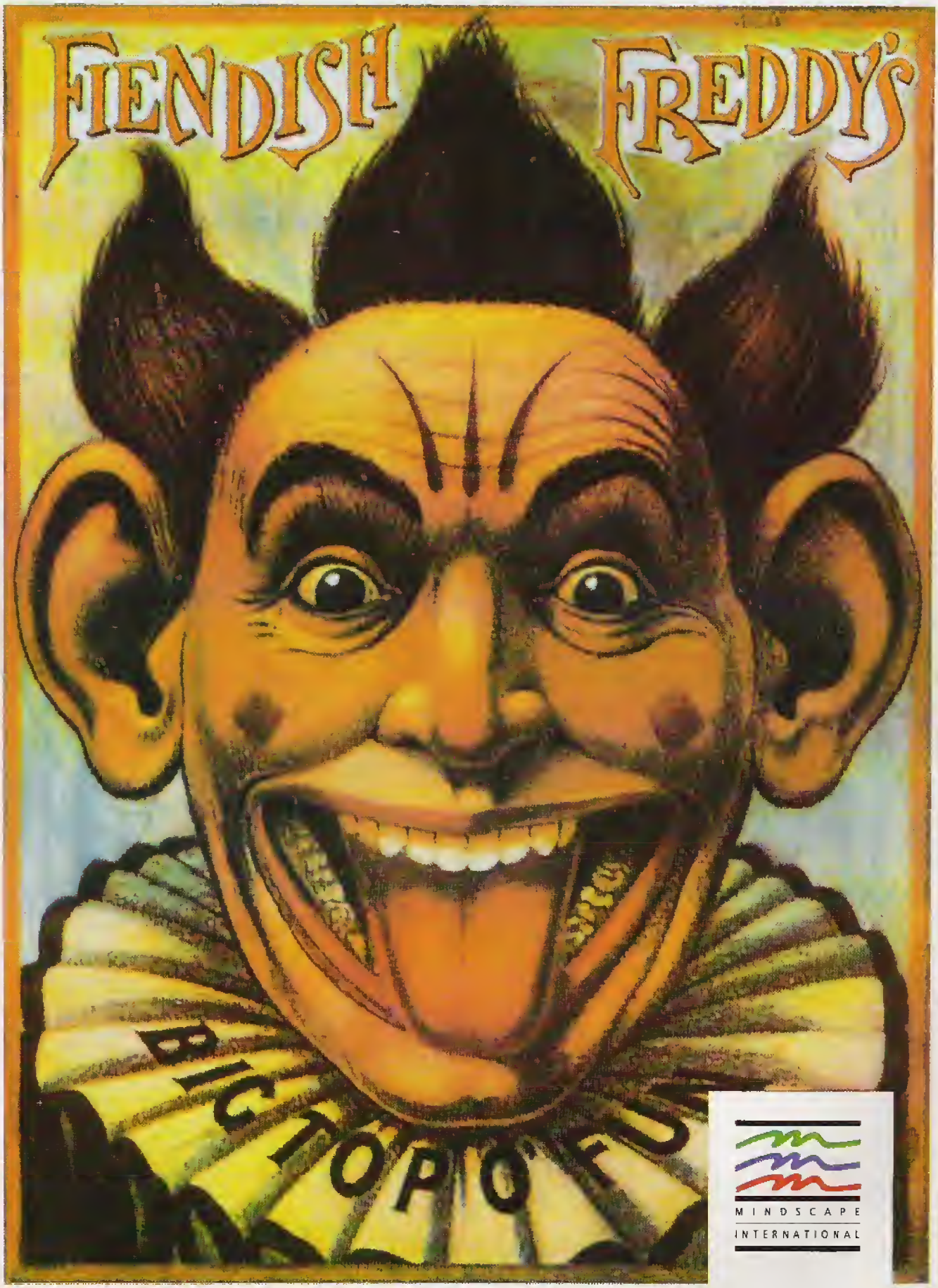

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